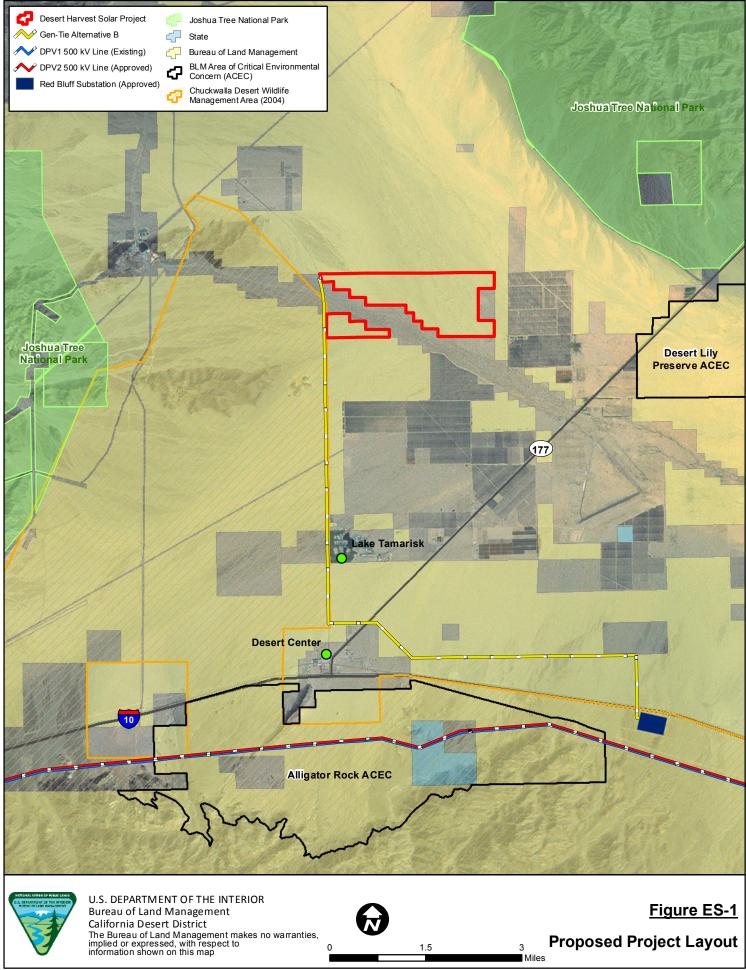
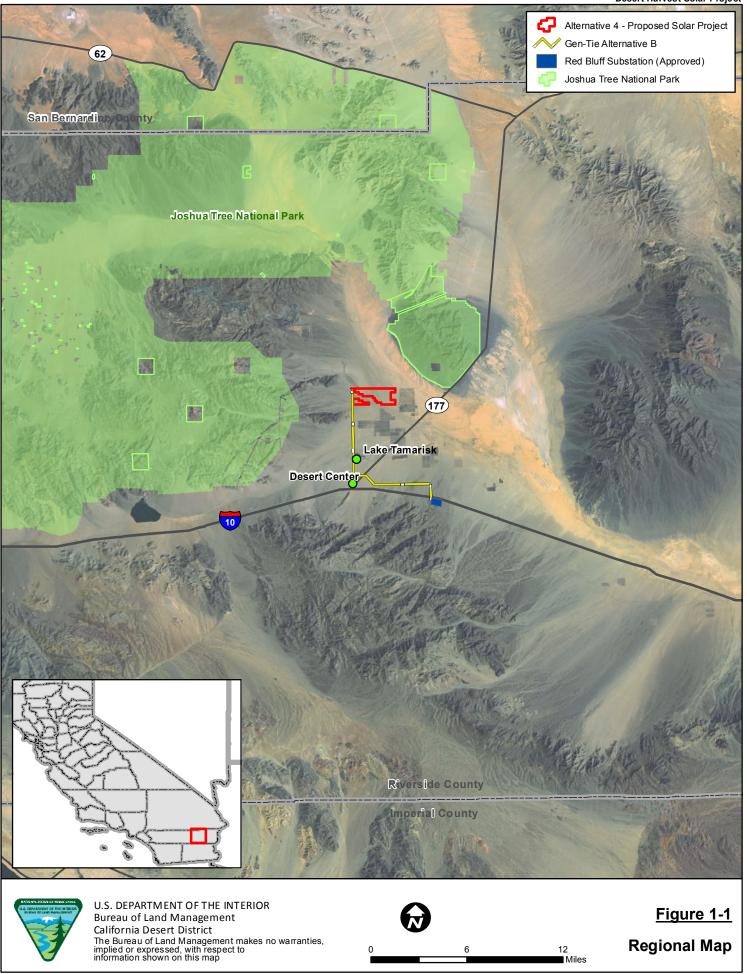
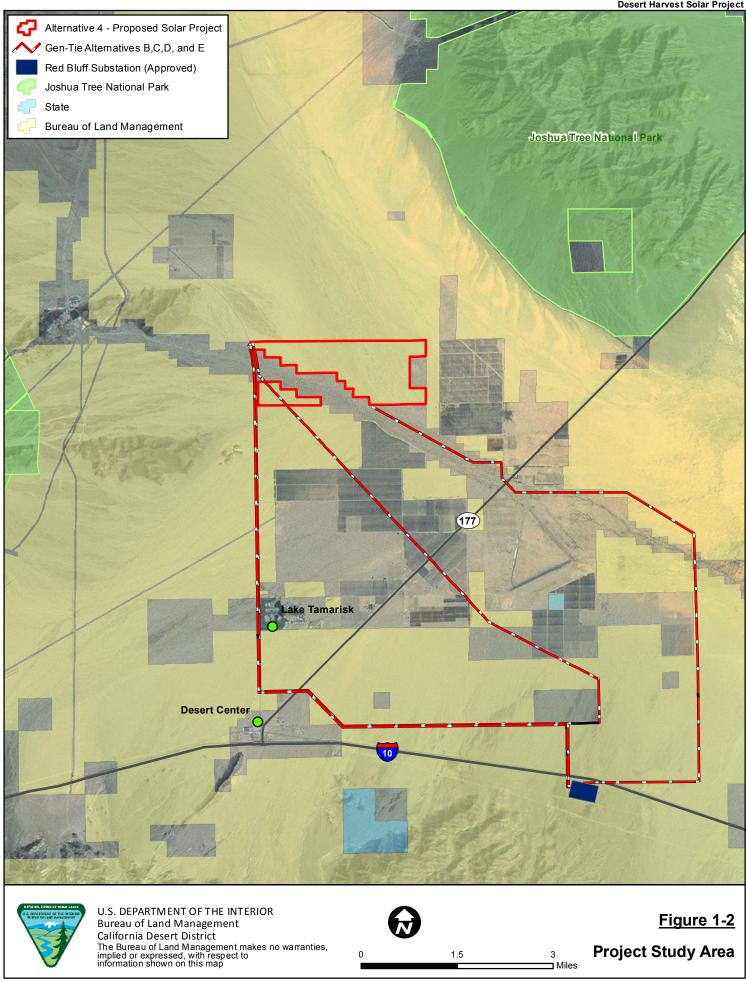
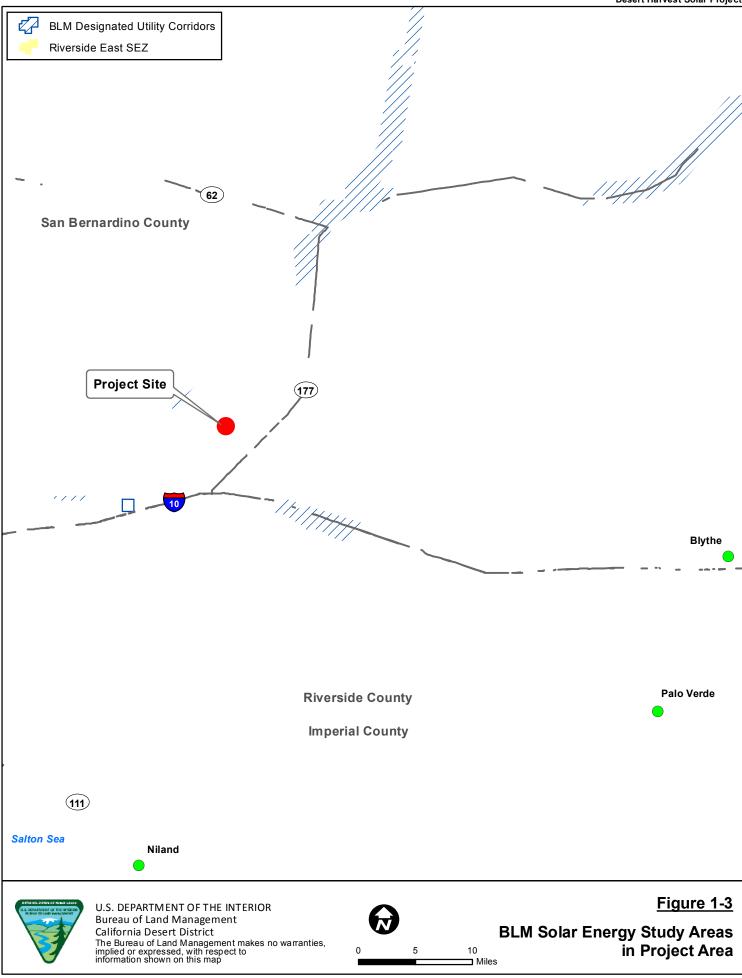
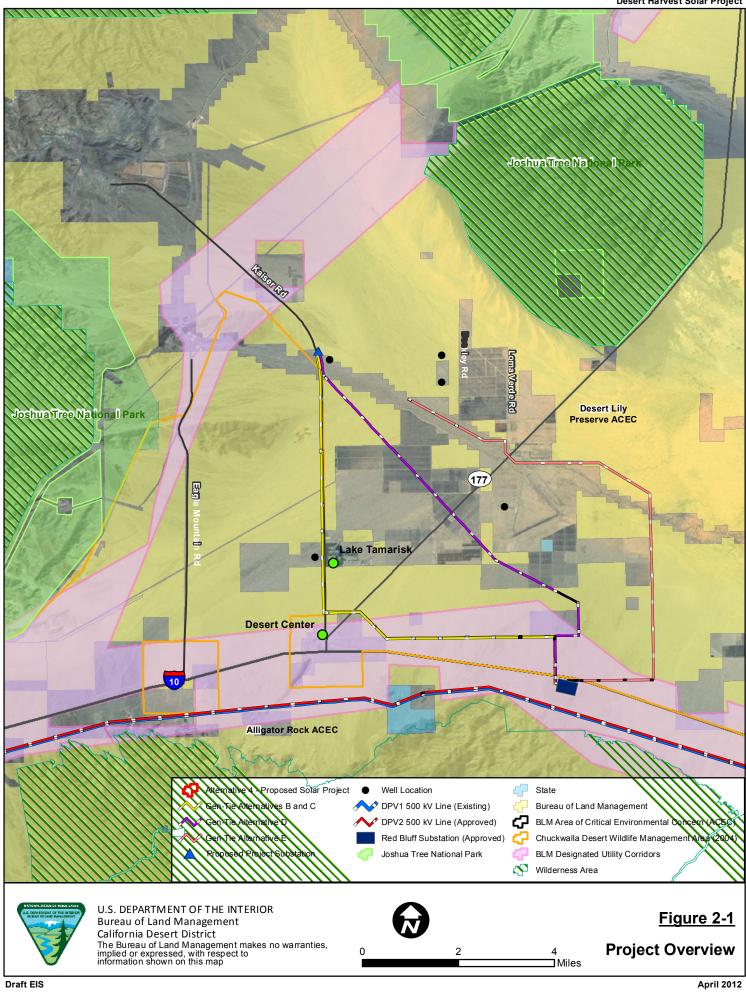
Appendix A. Figures Desert Harvest Solar Project



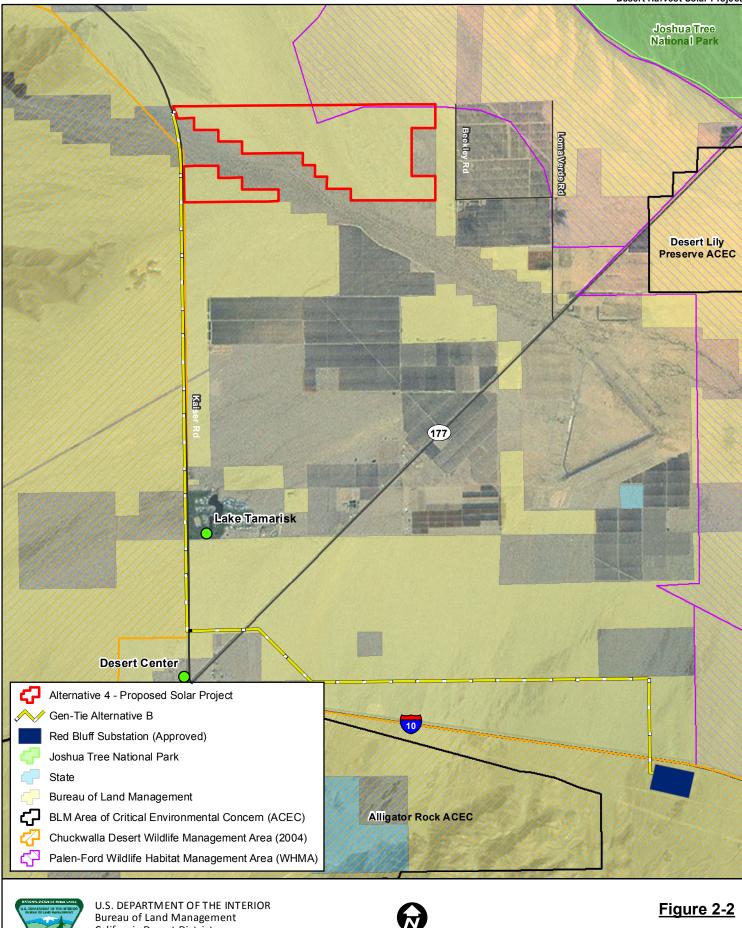








April 2012

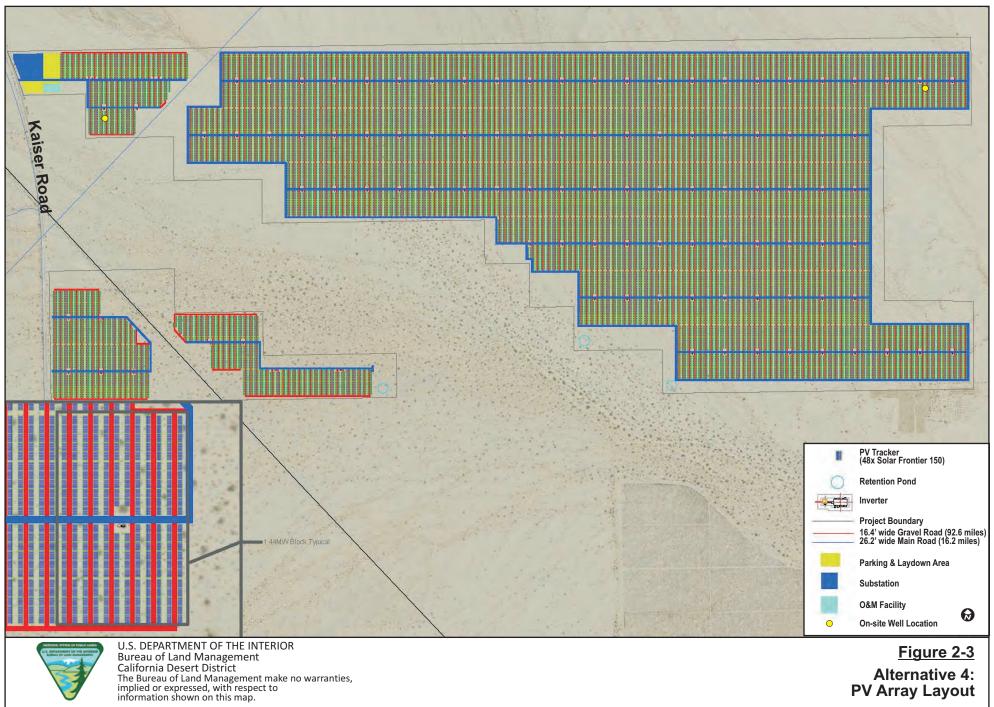




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Alternative 4:
Proposed Solar Project





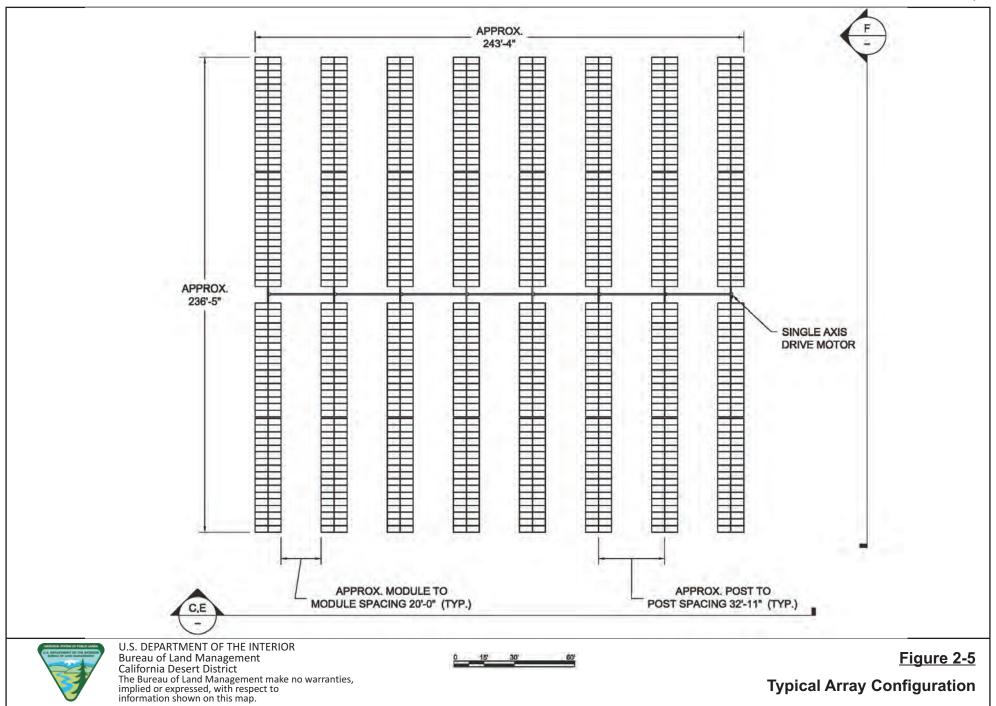
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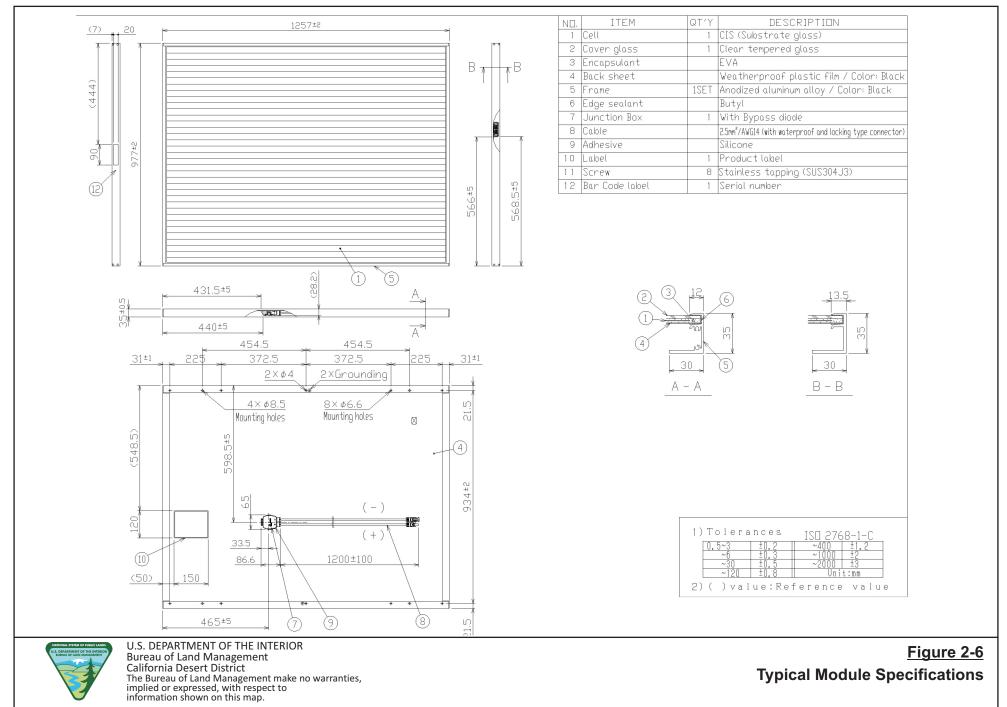


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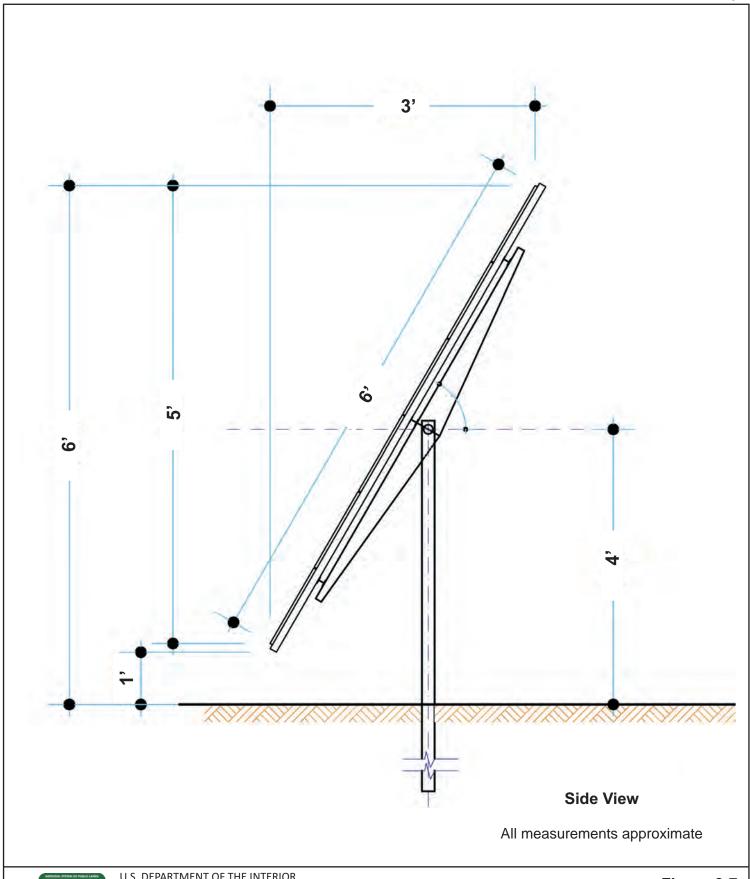
Figure 2-4
Typical Photovoltaic Array

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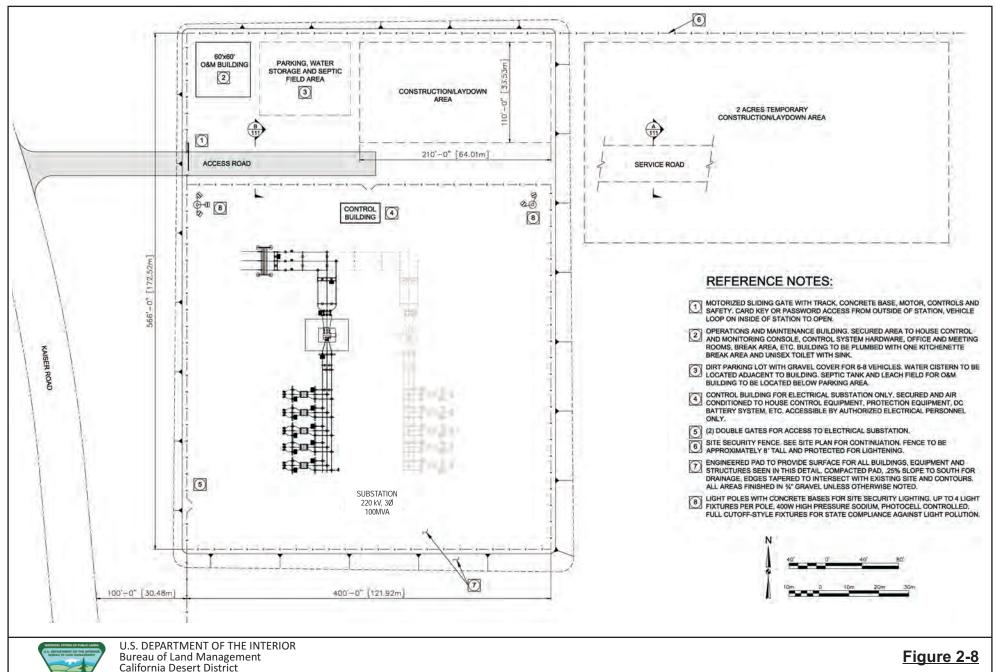
Typical Module Specifications





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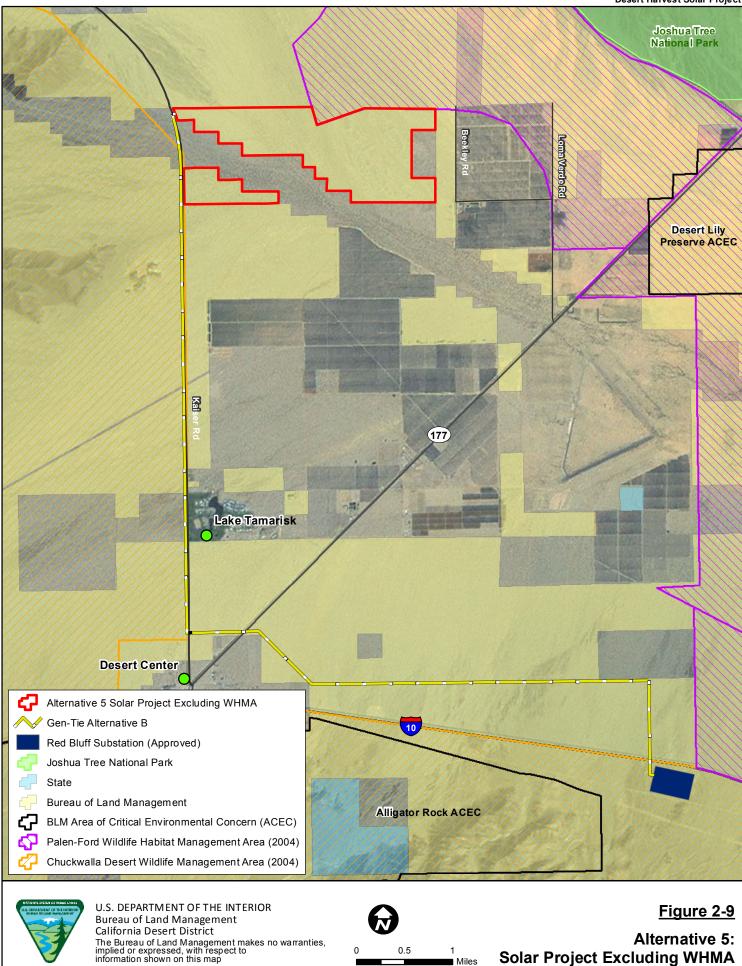
Figure 2-7
Typical Low-Profile
Tracker Specifications

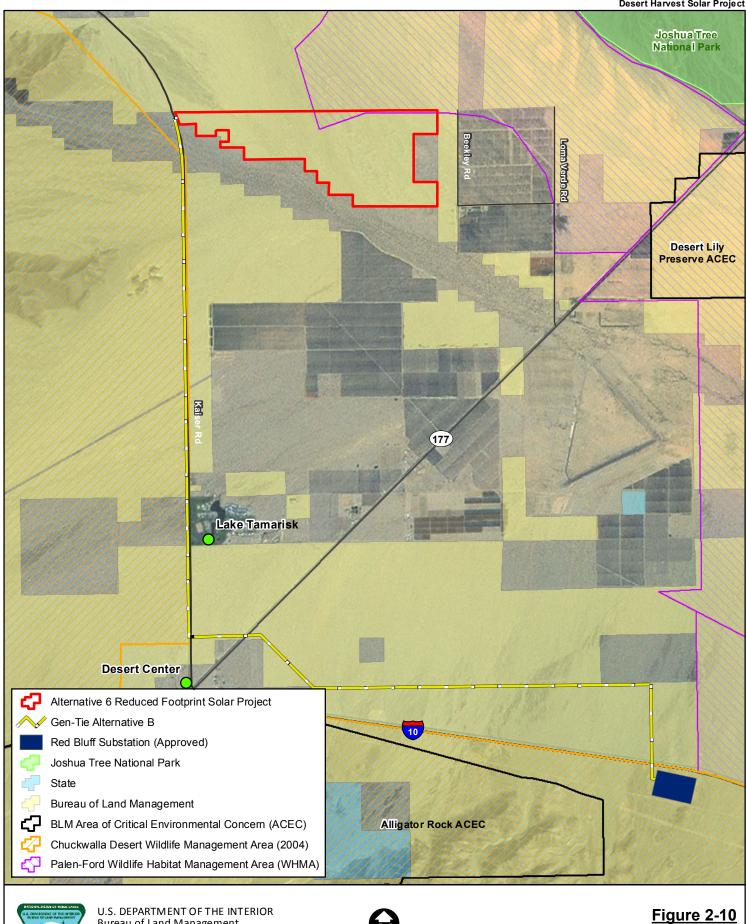


Electrical Plan for On-site Substation

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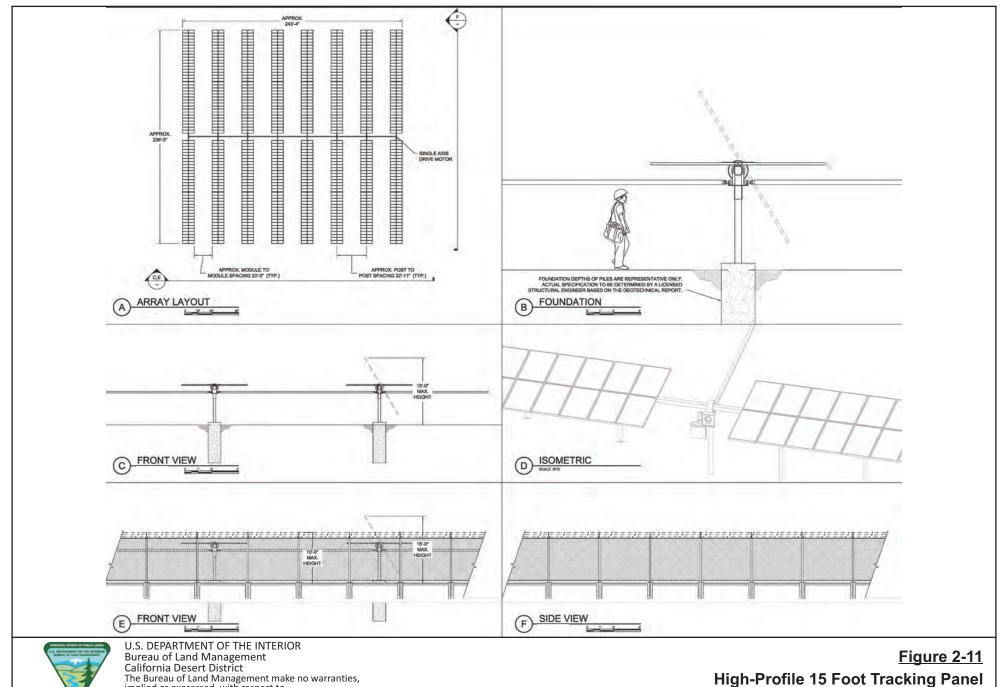




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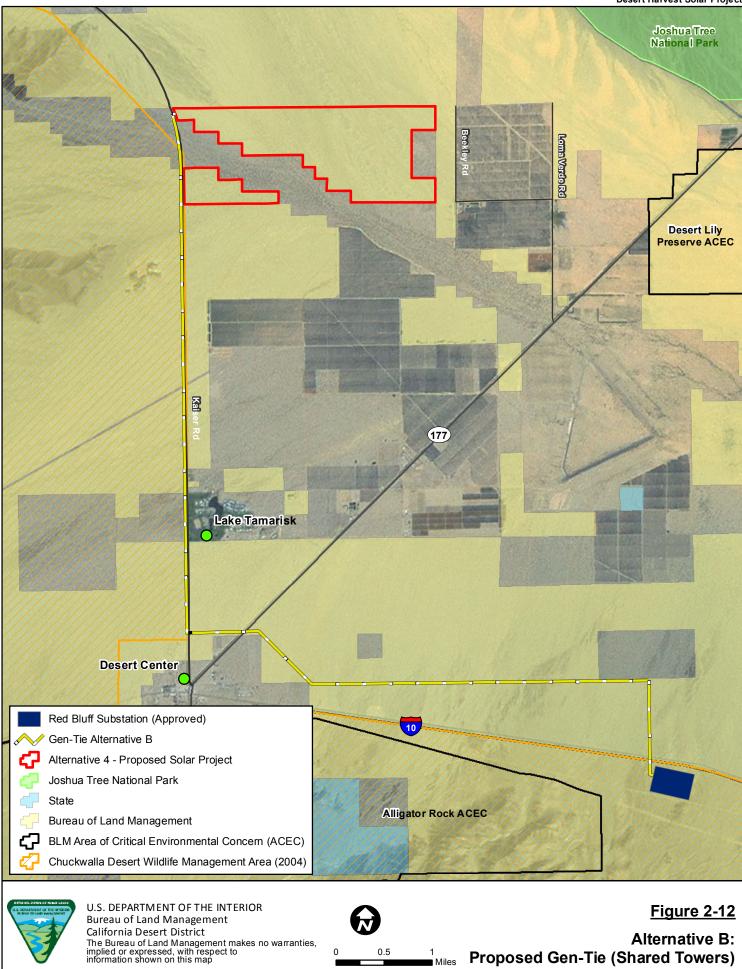
Alternative 6: Reduced Footprint Solar Project

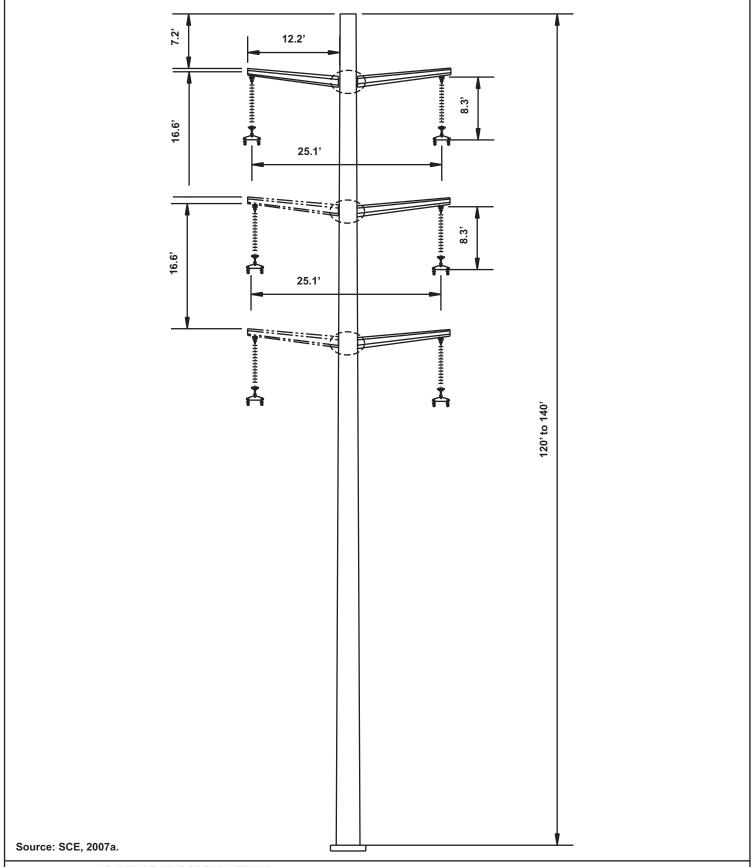


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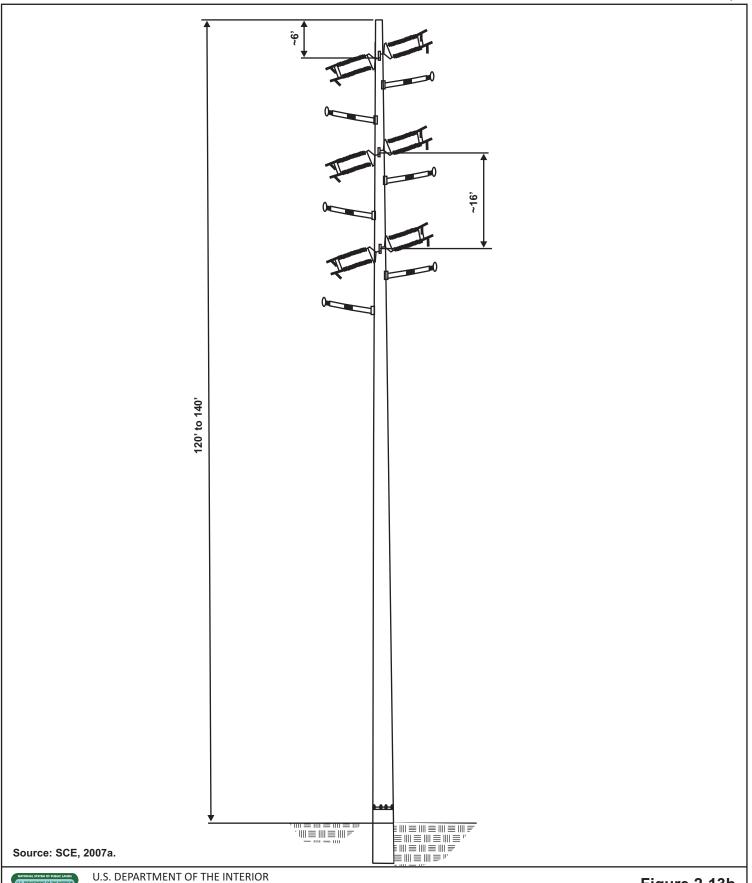






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Figure 2-13a
Typical 220-kV Line Monopole
Double-Circuit Tangent Structure

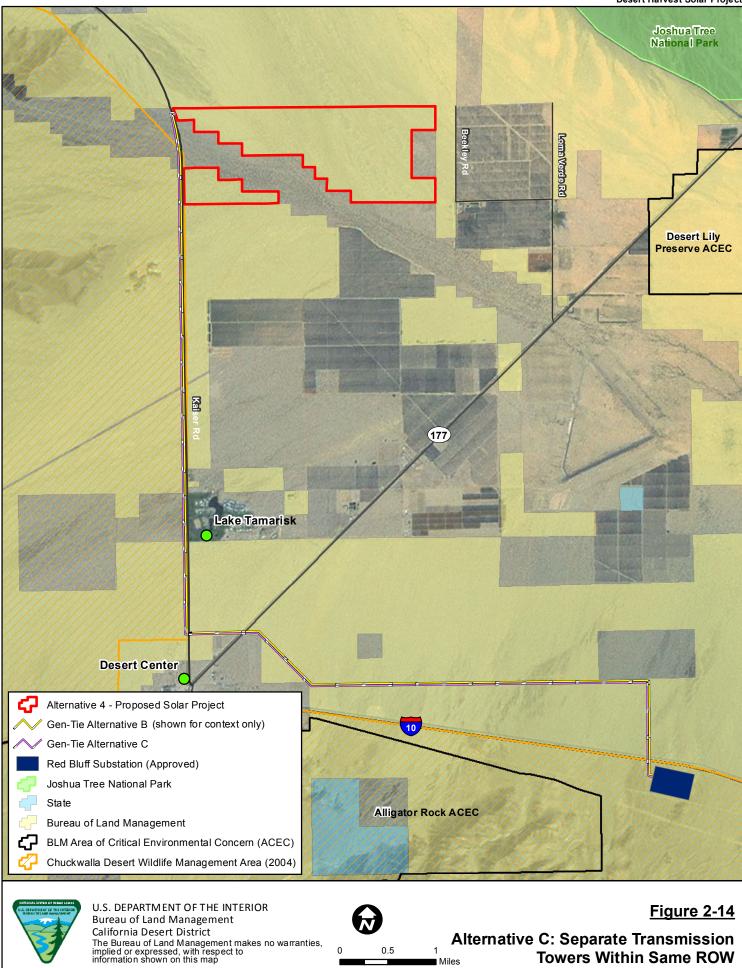


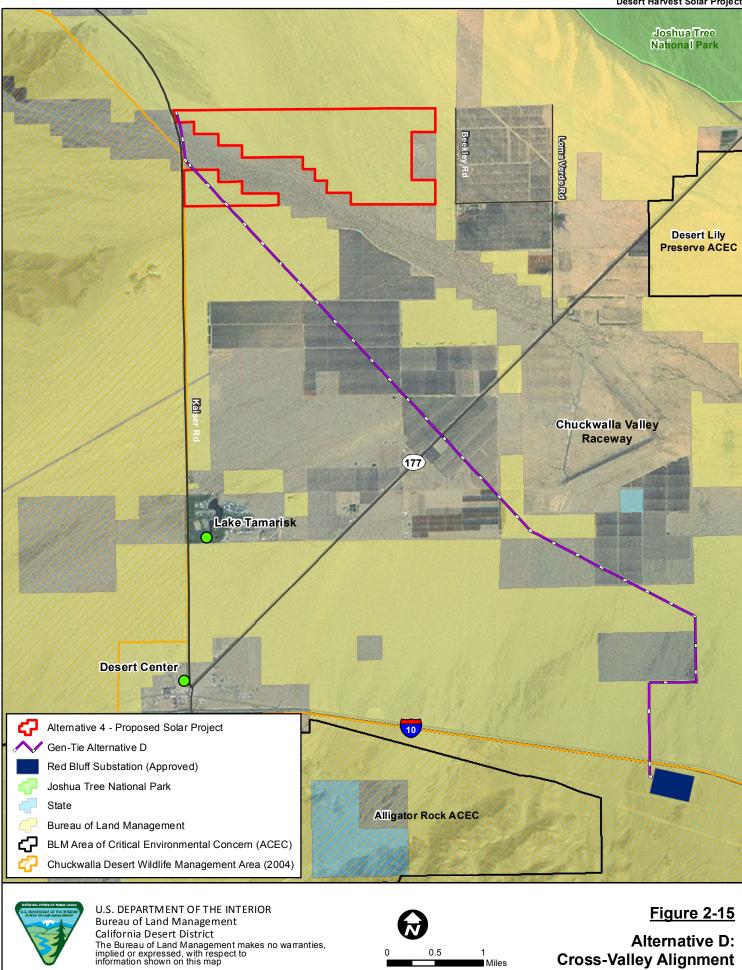


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Figure 2-13b

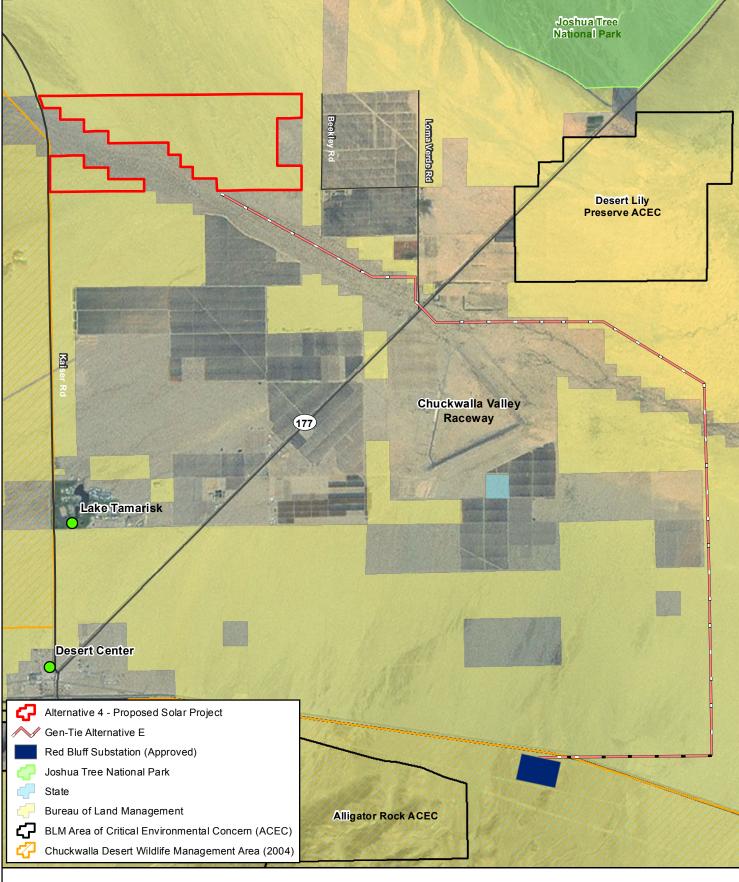
Typical 220-kV Line Monopole Double-Circuit Dead End Structure





Cross-Valley Alignment

Miles



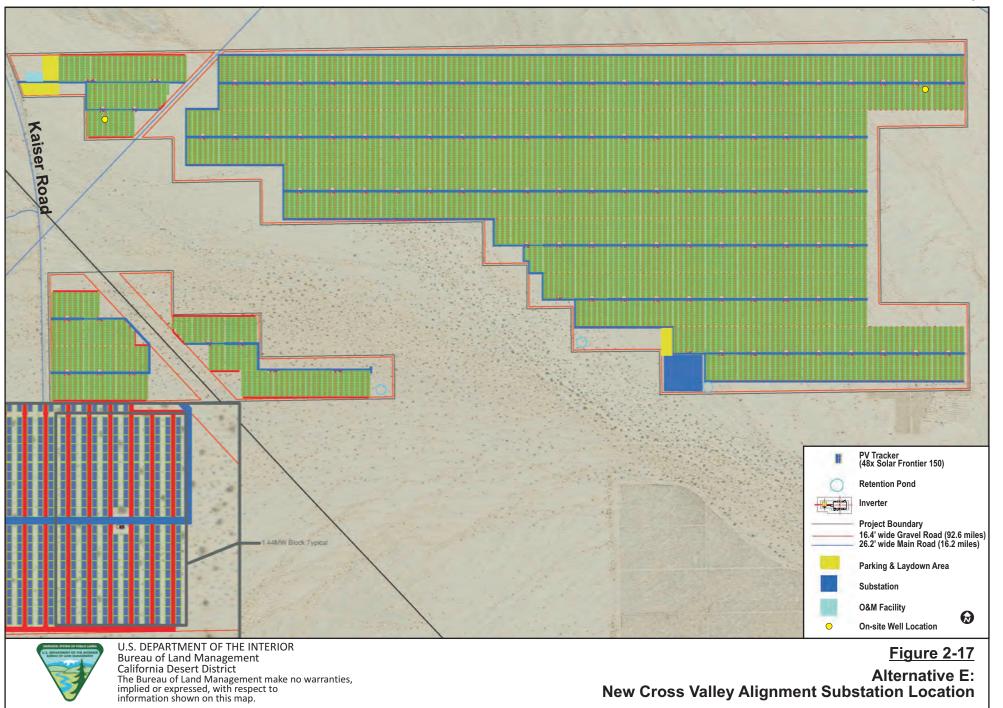


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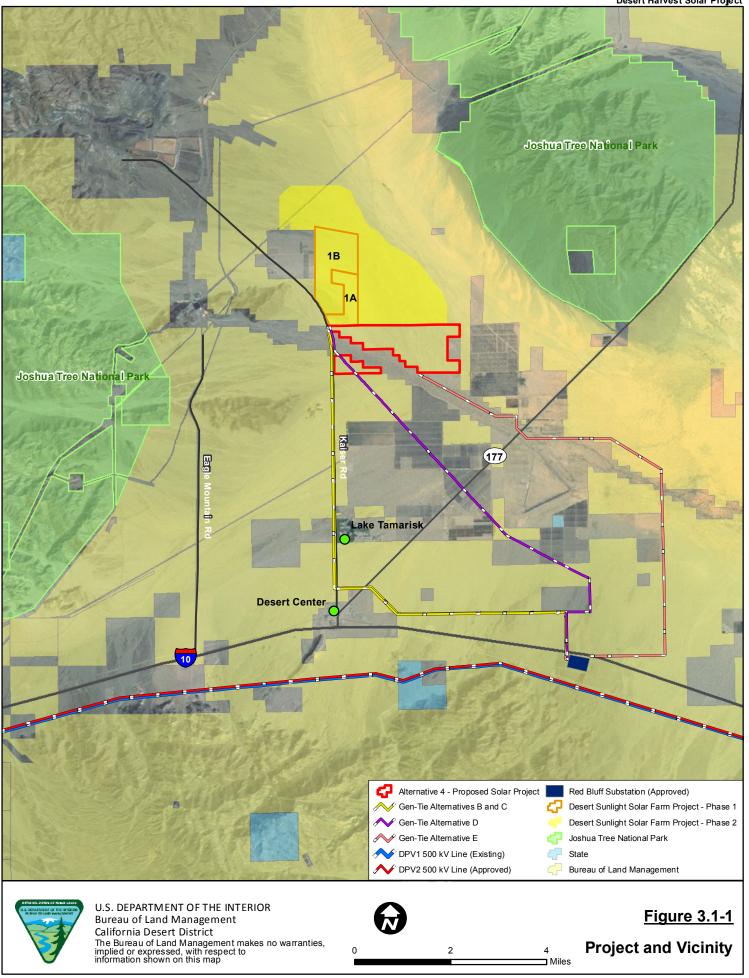


0.5 Miles

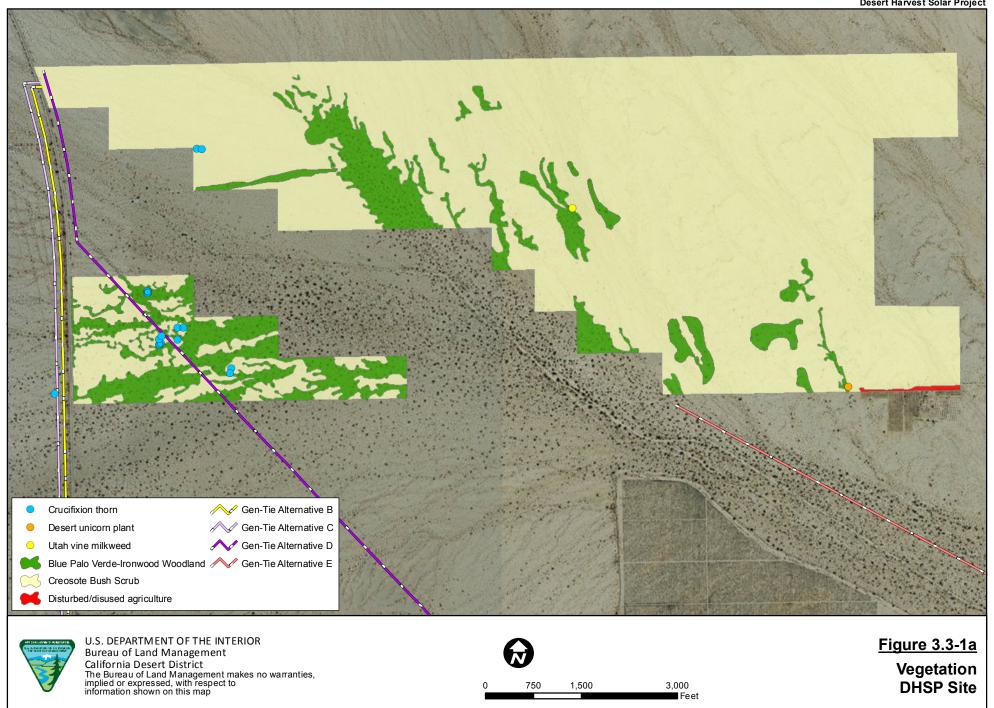
Figure 2-16 Alternative E: New Cross-Valley Alignment

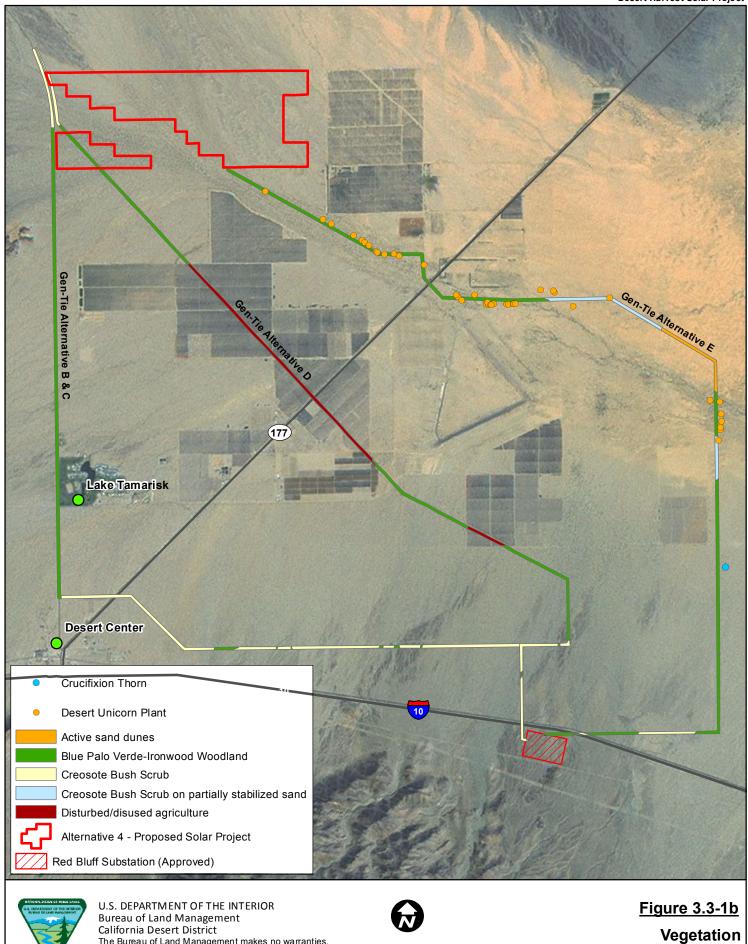


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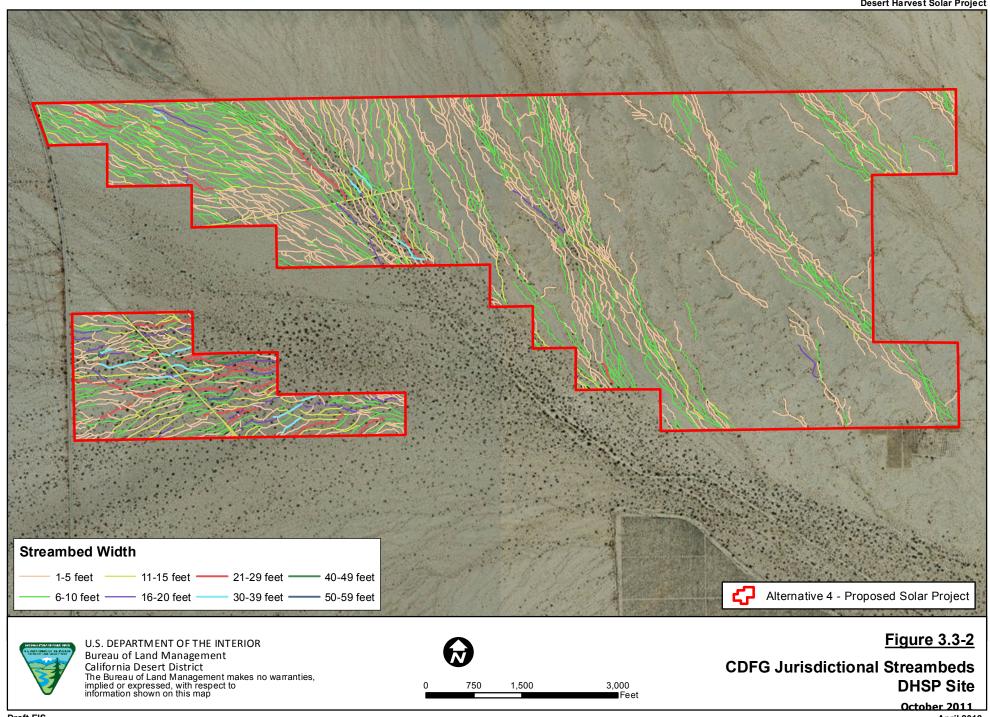


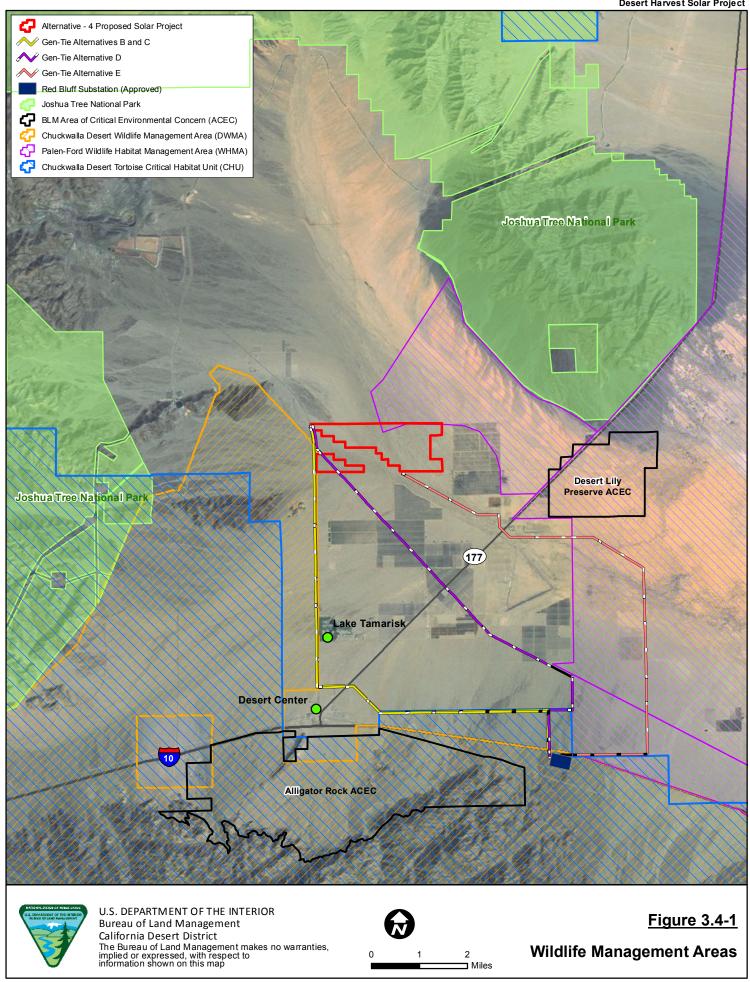


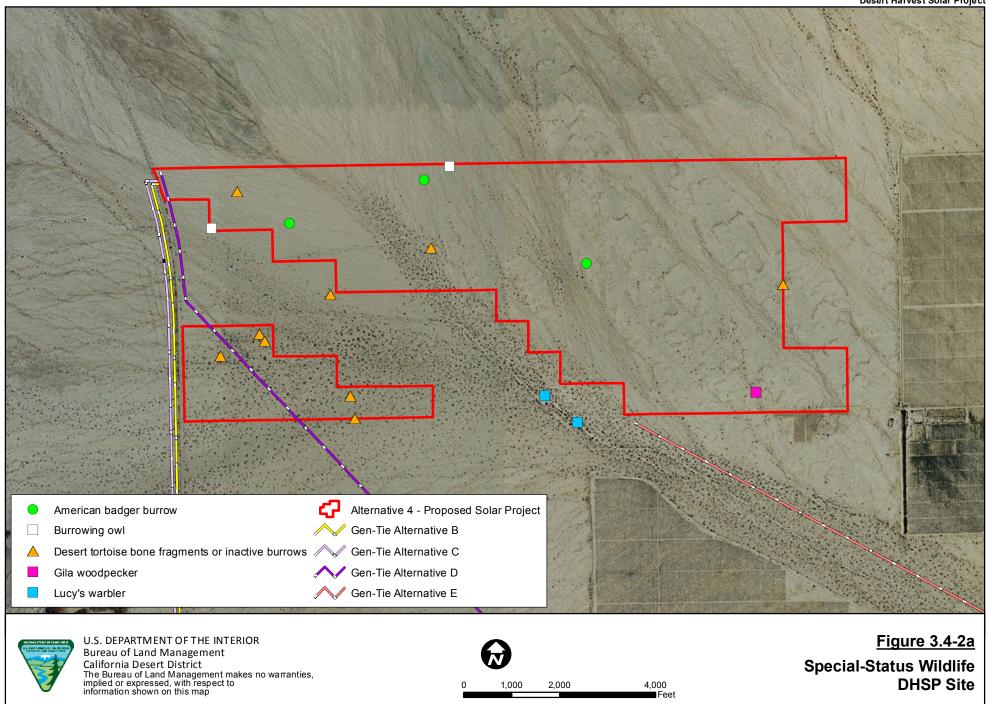
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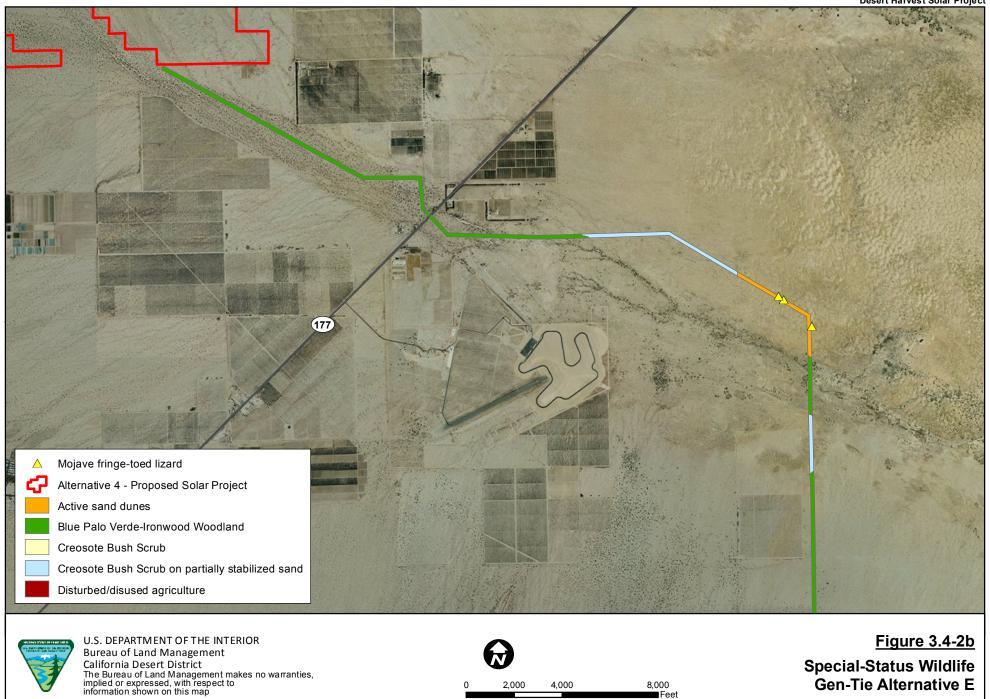
Gen-Tie Line Alternatives







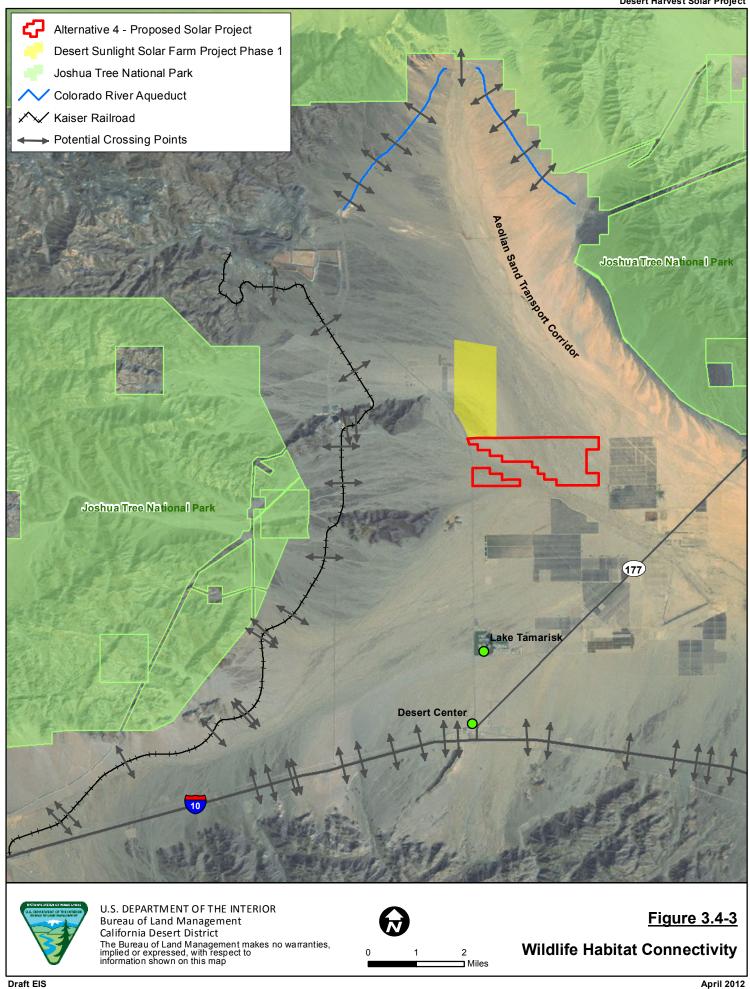
Gen-Tie Alternative E

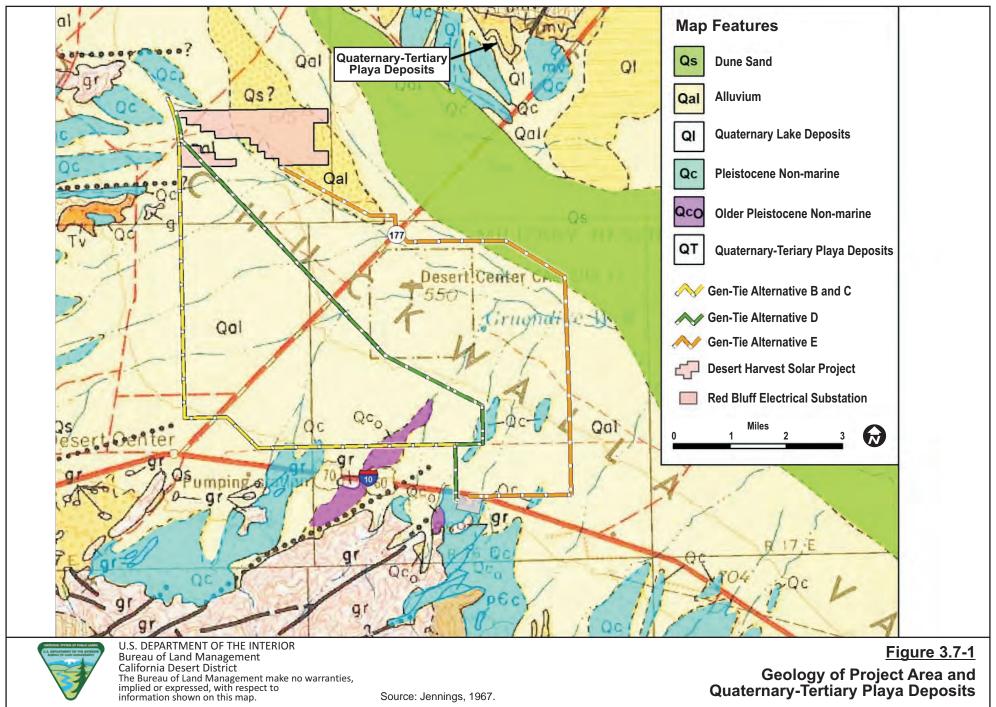


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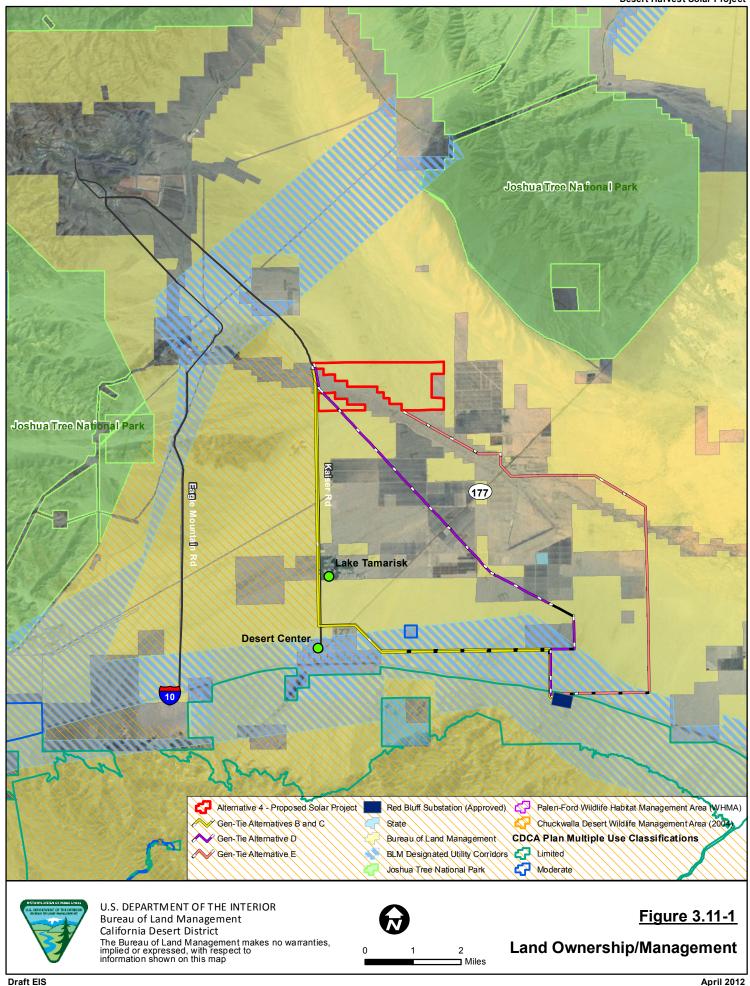
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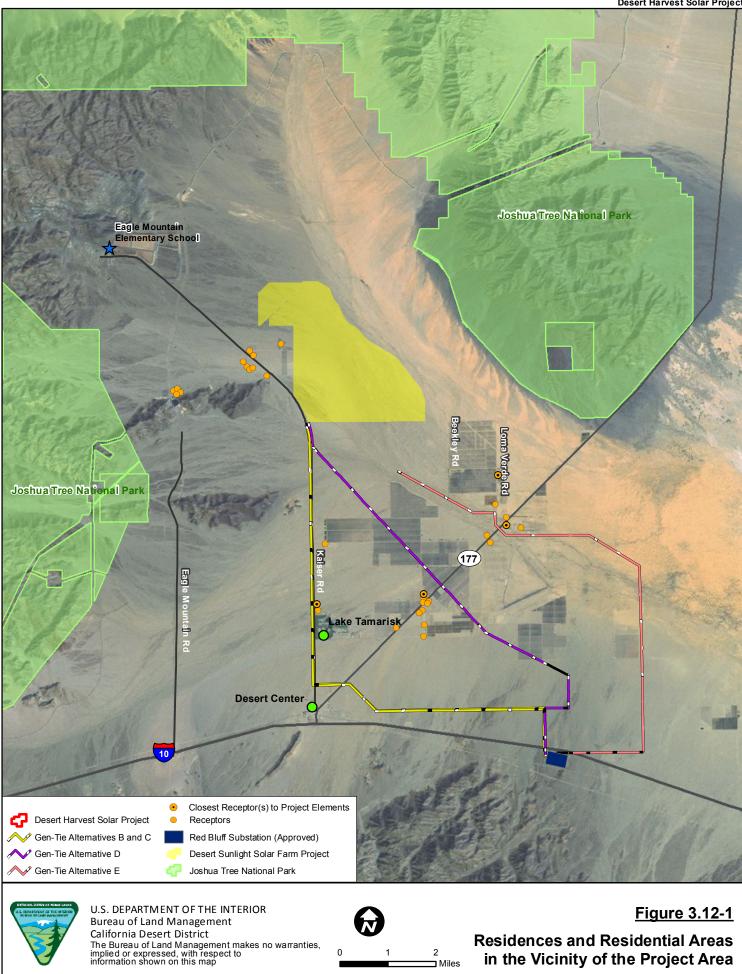


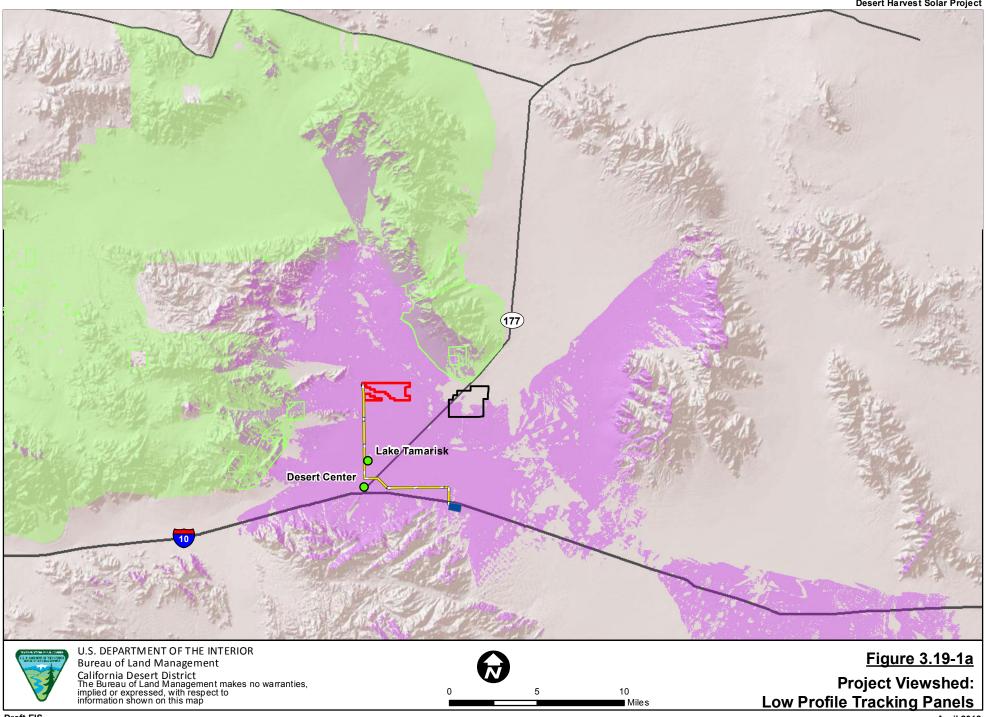


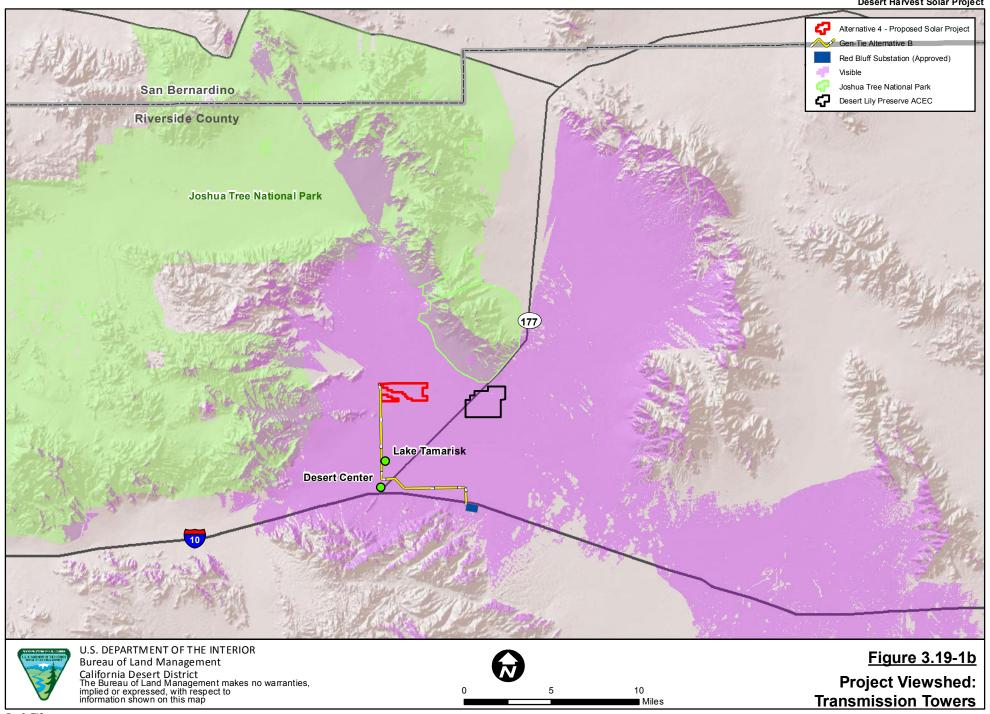
Source: Jennings, 1967.

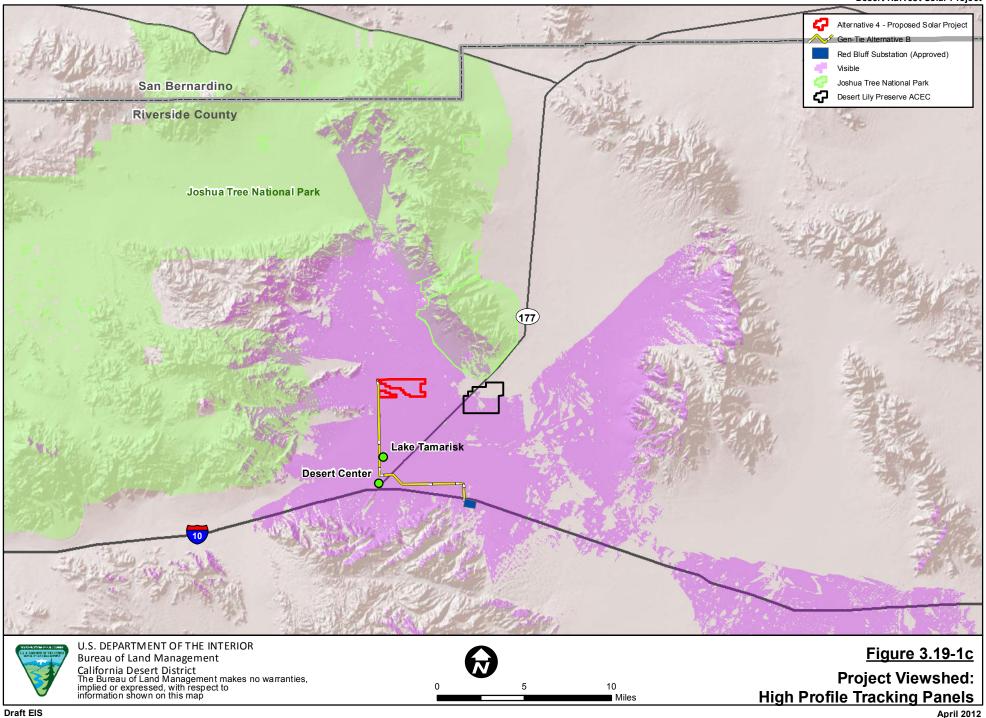
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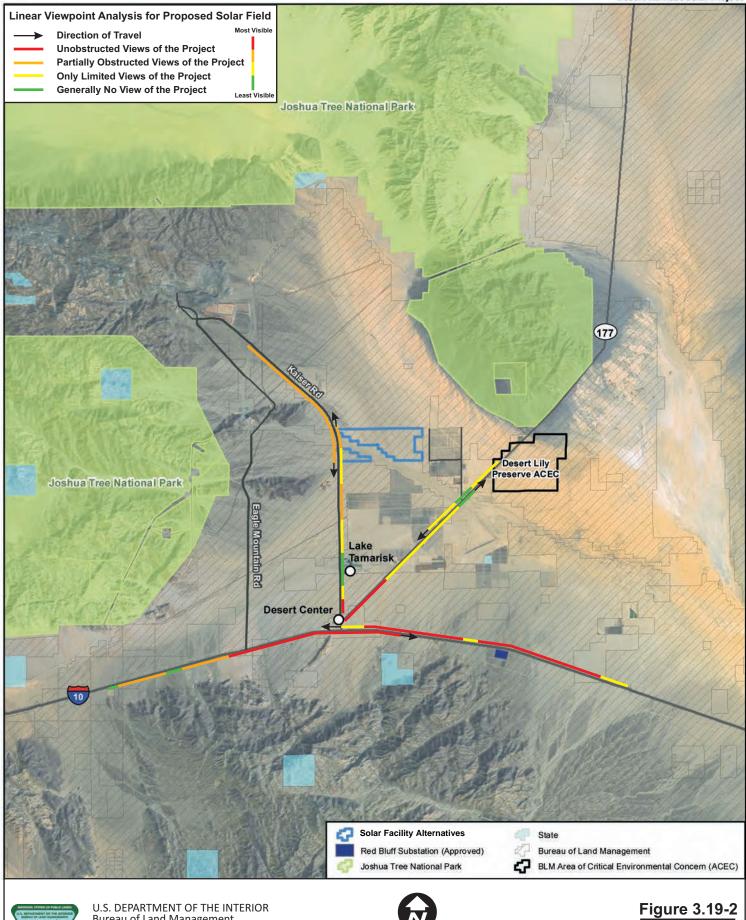










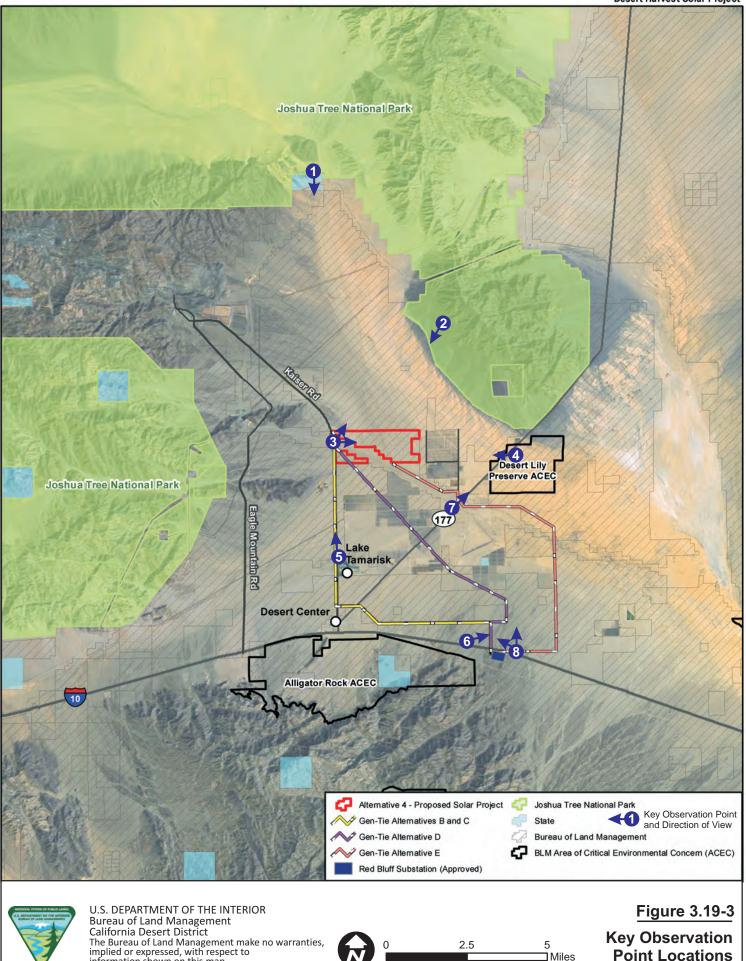


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2.5 5 Miles

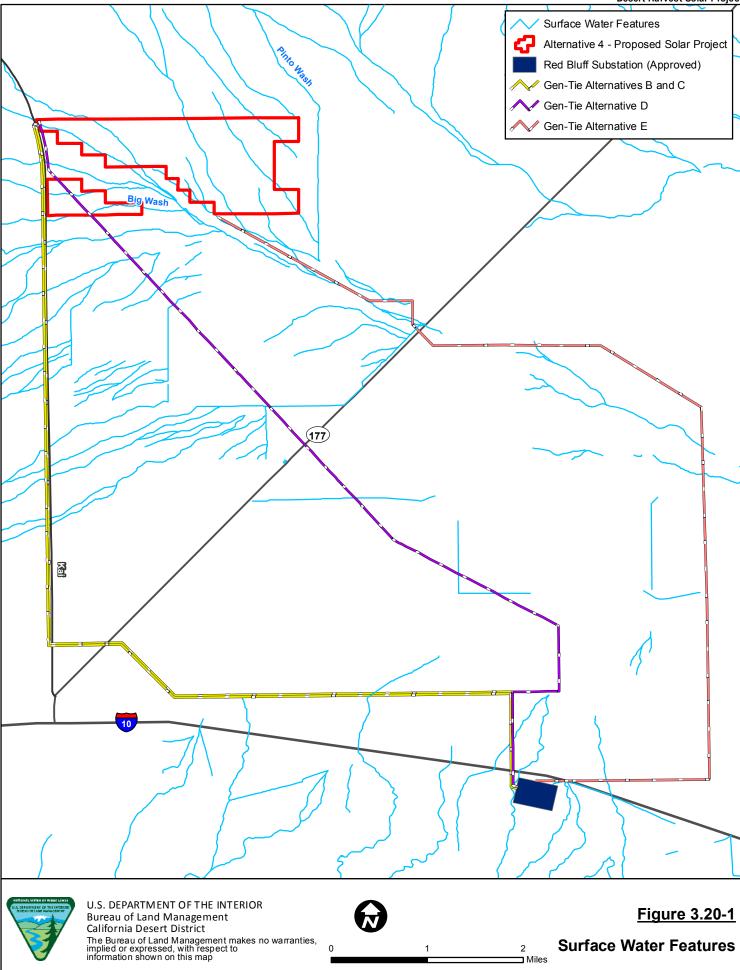
Linear Viewpoint Analysis for DHSP

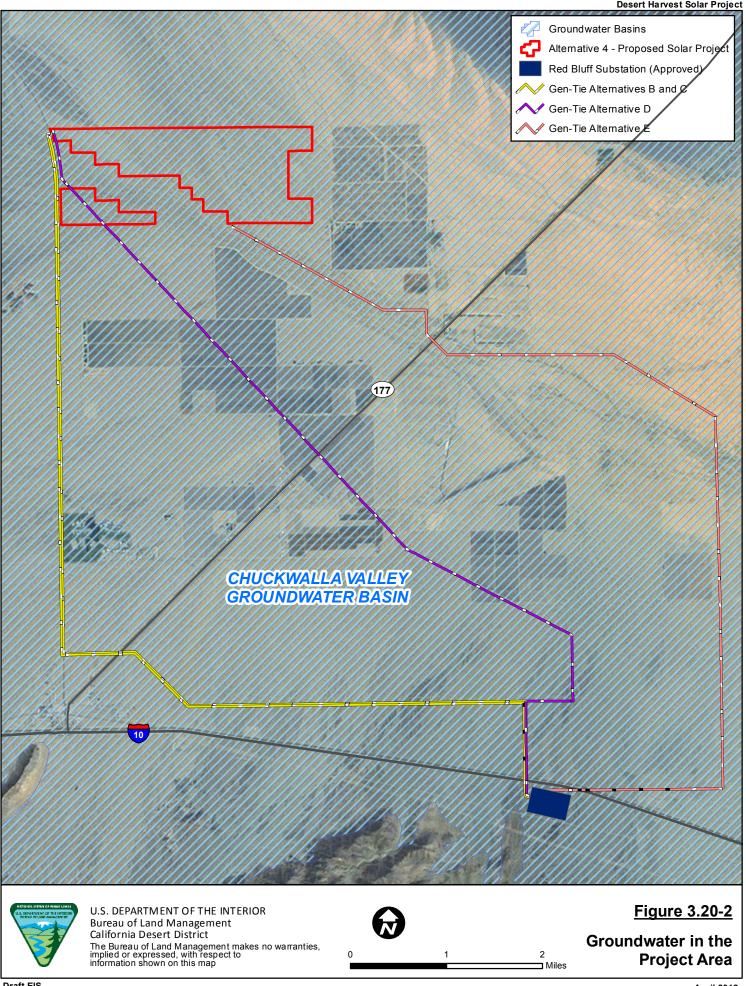


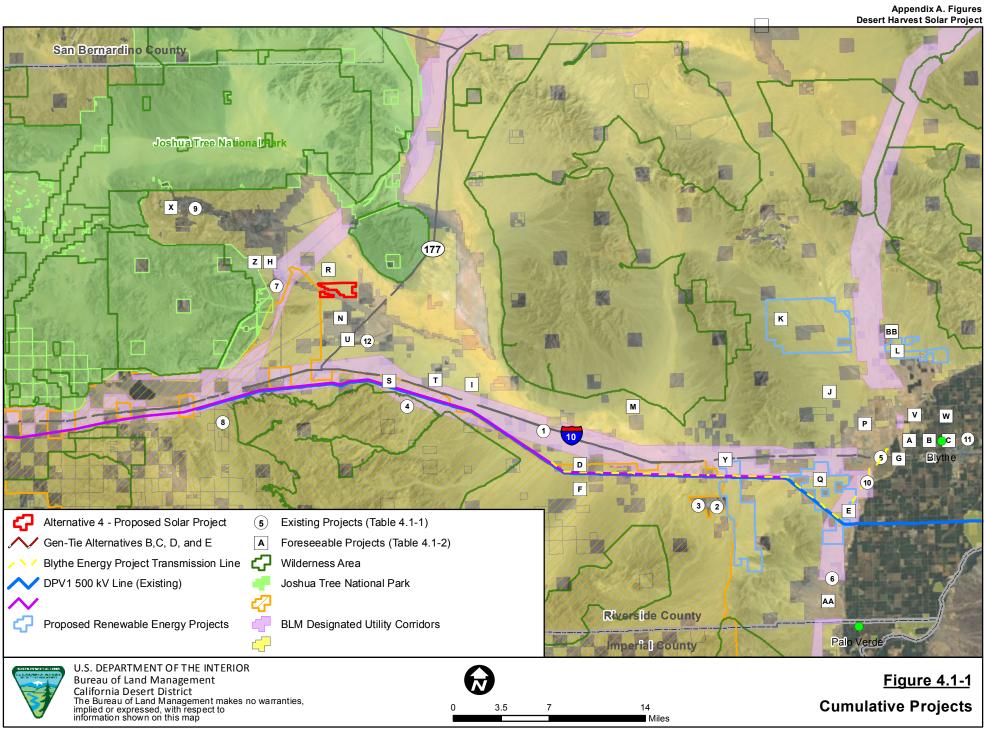
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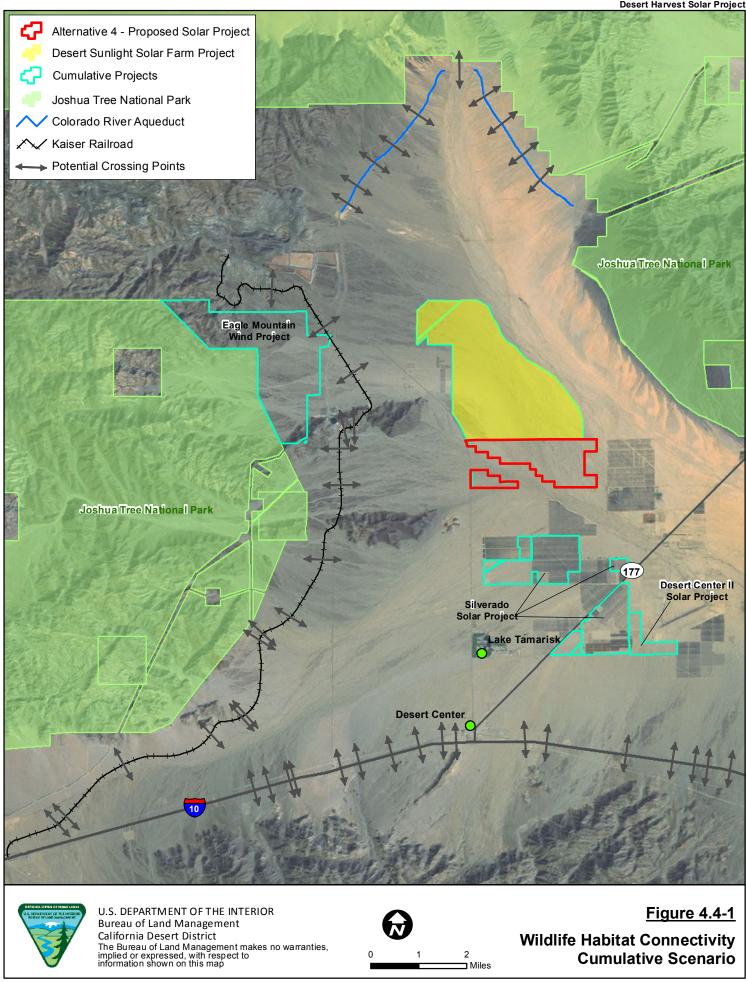
☐Miles

Key Observation Point Locations













This image presents an **Existing View** of the **Proposed project area**, approximately eight miles to the south of this location, as viewed from Key Observation Point 1 in Joshua Tree Wilderness at the northeast end of the Eagle Mountains. This view to the south overlooks the open expanse that comprises the north end of Chuckwalla Valley, backdropped by the eastern extent of the Eagle Mountains (right side of image) and the Chuckwalla Mountains beyond. The Colorado River Aqueduct is visible in the foreground.

Figure 4.19-1A
Key Observation Point 1
Joshua Tree Wilderness
Eagle Mountains





This image presents a **Visual Simulation** of the **Proposed project**, approximately eight miles to the south of this location, as viewed from Key Observation Point 1 in Joshua Tree Wilderness. The proposed solar facility is faintly visible as light-colored, horizontal features (two development areas with solar panels facing to the south, away from this viewpoint) in the left center of the image. The proposed gen-tie transmission line is barely discernible as a sequence of vertical features to the immediate right (west) of the solar farm.

Figure 4.19-1B
Key Observation Point 1
Joshua Tree Wilderness
Eagle Mountains





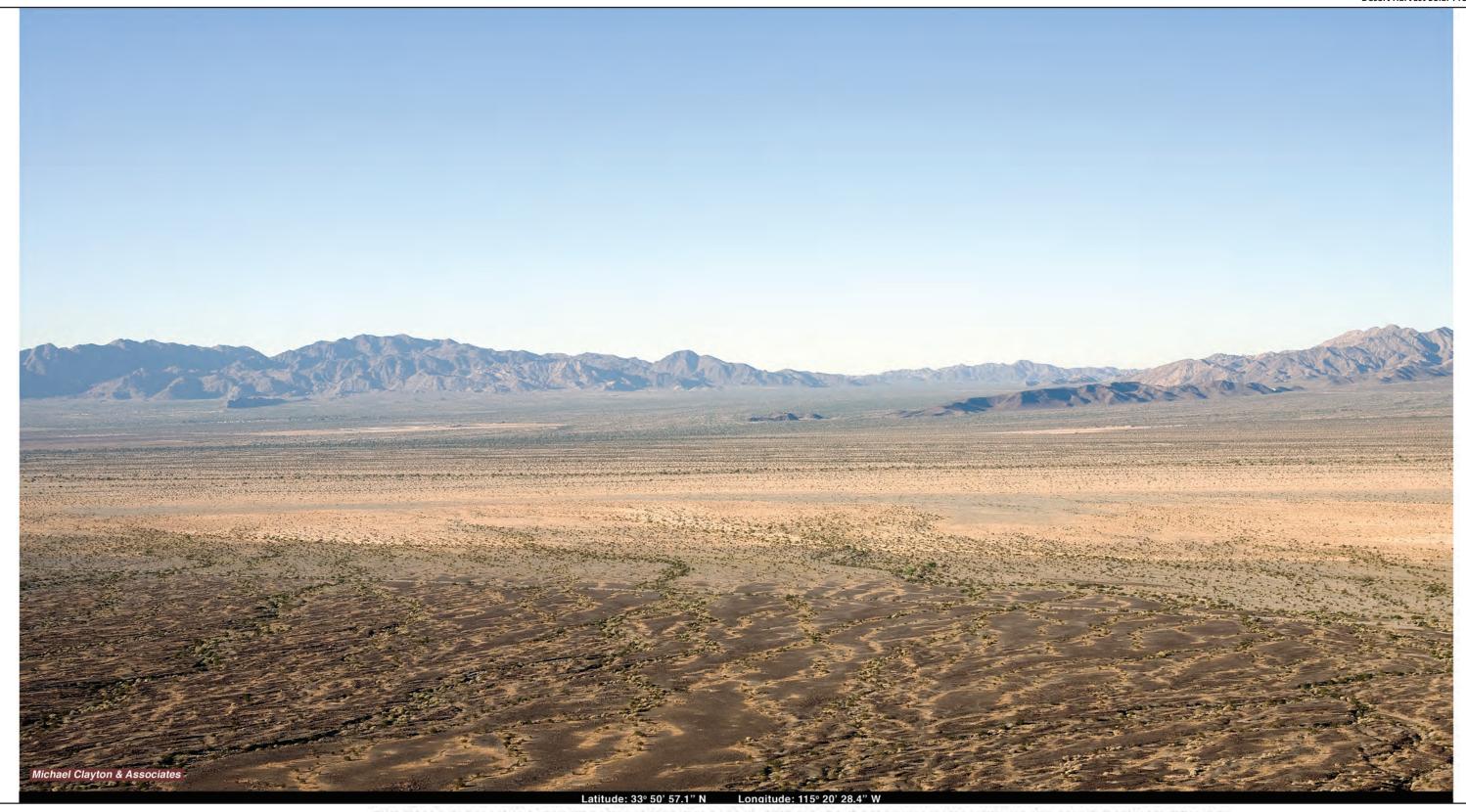
This image presents a **Visual Simulation** of **Alternative 7** (high profile, single-axis tracking panels) facing east (left). The eastern (left) portion of the facility (horizontal, linear feature in left-center of the image) appears darker because the panel backs are visible in shadow. Further west (right), and with a changing view angle, the panels begin to exhibit a bluish hue as they begin to show reflected sky. The appearance of the solar panels will change depending on time of day, orientation of the tracking panels, and characteristics of the reflected sky.

Figure 4.19-1C

Key Observation Point 1A

Joshua Tree Wilderness

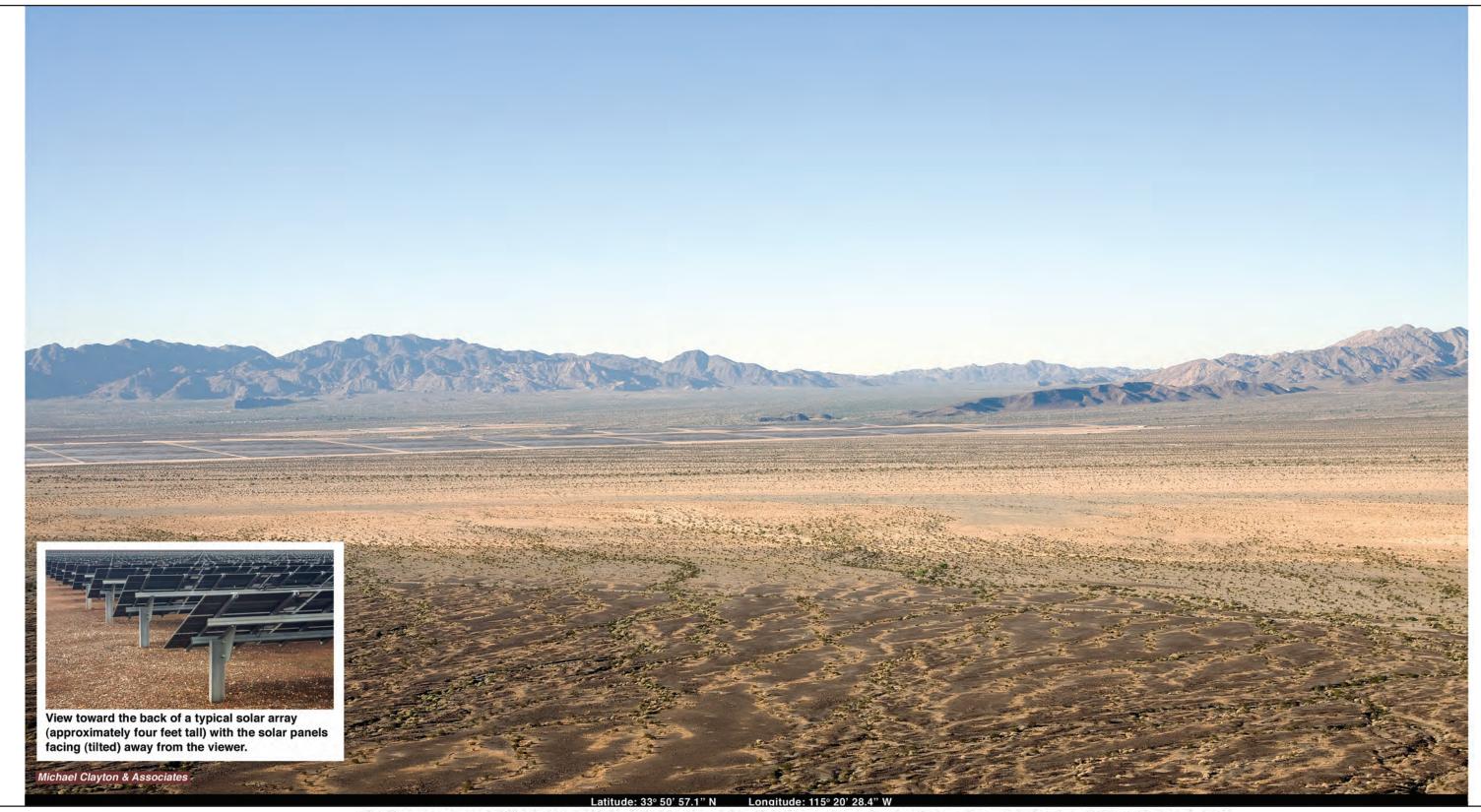
Eagle Mountains





This image presents the **Existing View** of the **Proposed project area** (approximately 3.5 miles to the southwest) from KOP 2 in Joshua Tree Wilderness along the western flank of the Coxcomb Mountains. This elevated vantagepoint overlooks the open expanse that comprises the north end of Chuckwalla Valley, backdropped by the eastern extent of the Eagle Mountains (right side of image) and the Chuckwalla Mountains to the south (center-left of image).

Figure 4.19-2A
Key Observation Point 2
Joshua Tree Wilderness
Coxcomb Mountains





This image presents a **Visual Simulation** of the **Proposed project** (approximately 3.5 miles to the southwest) from KOP 2. The proposed solar facility would appear as a spatially prominent and central series of geometric patterns on the basin floor and would contrast with the predominantly natural appearance of the northern Chuckwalla Valley landscape and background Chuckwalla and Eagle Mountains. The proposed gen-tie transmission line is faintly visible as a sequence of vertical features above the solar development area.

Figure 4.19-2B
Key Observation Point 2
Joshua Tree Wilderness
Coxcomb Mountains





This image presents a **Visual Simulation** of the **Cumulative Effect** of the **Proposed project** and **Desert Sunlight project** from KOP 2 (with a viewing distance ranging from 2.5 to 3.5 miles to the southwest). This view is looking toward the back of the solar field with the solar panels facing (tilted) toward the south, away from this viewing location. The proposed solar farm would appear as a spatially prominent series of geometric patterns on the otherwise naturally appearing Chuckwalla Valley basin floor.

Figure 4.19-2C
Key Observation Point 2
Joshua Tree Wilderness
Coxcomb Mountains





This image presents the **Existing View** of the **Proposed project area** from KOP 3 on northbound Kaiser Road, in the immediate vicinity of the proposed solar facility. This viewpoint encompasses the open expanse of a portion of the Chuckwalla Valley, backdropped by the southern extent of the Coxcomb Mountains (center-left of image at a distance of approximately five miles) with the Palen Mountains (center and right) beyond, at a distance of approximately 13 miles.

Figure 4.19-3A
Key Observation Point 3
Kaiser Road
Project Vicinity





This image presents a **Visual Simulation** of the **Proposed Solar facility** from KOP 3 on northbound Kaiser Road. This view captures a portion of the north development area. The viewing distance to the solar arrays ranges from approximately 0.4 mile to approximately 1.4 miles. The solar facility would constitute a substantial landscape feature on the basin floor. However, the low-profile panels would be somewhat screened from view by intervening vegetation (depending on the viewpoint location) as illustrated in the above simulation.

Figure 4.19-3B
Key Observation Point 3
Kaiser Road
Project Vicinity





This image presents the **Existing View** of a portion of the **Alternative 7** development area, as seen from KOP 3A on northbound Kaiser Road, in the immediate vicinity of the development area. This view to the northeast encompasses the open expanse of a portion of the Chuckwalla Valley, backdropped by the Coxcomb Mountains (at a distance of approximately five miles) with the Palen Mountains beyond (out of the frame of view to the right), at a distance of approximately 13 miles.

Figure 4.19-3C
Key Observation Point 3A
Kaiser Road
Immediate Project Vicinity





This image presents a **Visual Simulation** of **Alternative 7** (high profile, single-axis tracking panels) facing west (left), as viewed from KOP 3A on northbound Kaiser Road, in the immediate project vicinity. The appearance (color) of the solar panels will change depending on time of day, orientation of the tracking panels, and characteristics of the reflected sky. Viewing distance to the solar arrays from this location ranges from approximately 0.25 mile to approximately 0.75 mile. Also visible are numerous collector poles within the solar field.

Figure 4.19-3D
Key Observation Point 3A
Kaiser Road
Immediate Project Vicinity





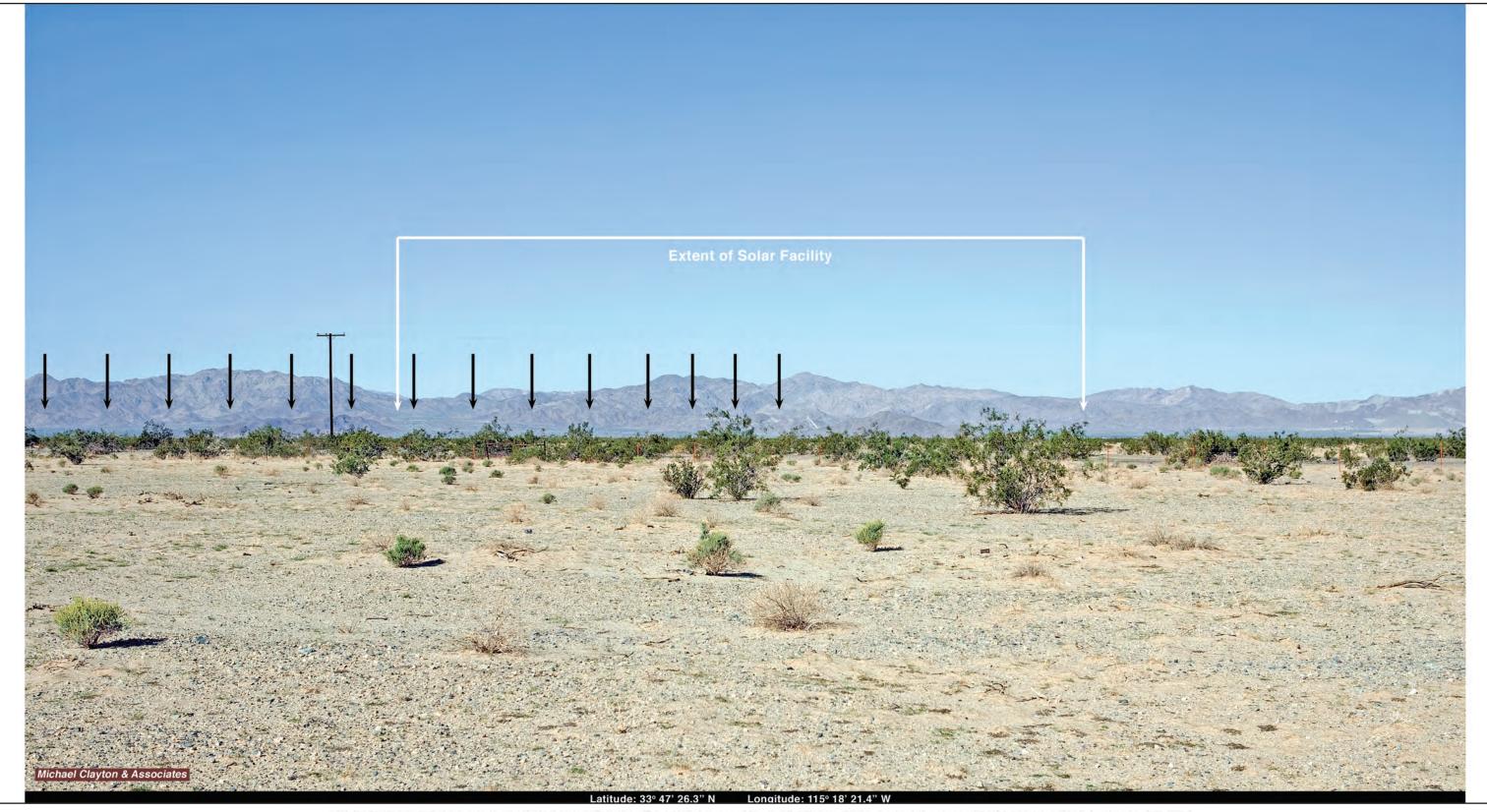
This image presents the **Existing View** toward the **Proposed project area** from KOP 4, near the western perimeter of the Desert Lily Sanctuary ACEC, and just east of SR 177 (the utility pole is adjacent to the roadway). This viewpoint encompasses a portion of the northern Chuckwalla Valley, backdropped by the Eagle Mountains (at a distance of approximately 10 miles). The project site (which would be located in the center of the image, approximately three miles due west) is substantially obscured by intervening vegetation.

Figure 4.19-4A

Key Observation Point 4

Desert Lily Sanctuary ACEC

Viewing West





This image presents a **Visual Simulation** of the **proposed gen-tie** line along Kaiser Road (structure locations indicated by black arrows) as viewed from KOP 4 in the Desert Lily Sanctuary ACEC. Only half of the transmission structures in this view would be partially visible above the vegetation. None of the solar facility panels (due to their low vertical profile of less than six feet) would be visible due to vegetative screening. However, at a distance of approximately 5.5 miles, the partially visible structures would be barely discernible.

Figure 4.19-4B
Key Observation Point 4
Desert Lily Sanctuary ACEC
Viewing West





This image presents the **Existing View** of the **Alternatives B and C Gen-Tie Transmission Line Routes** adjacent to Kaiser Road, as viewed from KOP 5 on northbound Kaiser Road, in the immediate vicinity the Lake Tamarisk residential development. This view to the north-northwest and the open expanse of Chuckwalla Valley west of Kaiser Road is partially obscured by roadside vegetation. The view is backdropped by the Eagle Mountains. The alternative transmission line routes would parallel the west side Kaiser Road.

Figure 4.19-5A
Key Observation Point 5
Northbound Kaiser Road
Lake Tamarisk





This image presents a Visual Simulation of the Alternative B Gen-Tie Transmission Line Alignment adjacent to Kaiser Road, as U.S. DEPARTMENT OF THE INTERIOR
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The structures. It is expected that the First Solar Project would fill the left circuit (left three conductors) on the structures shown above. The transmission line structures would be prominent vertical features in the viewshed west of Kaiser Road.

Figure 4.19-5B Key Observation Point 5 Northbound Kaiser Road Lake Tamarisk





This image presents a **Visual Simulation** of the **Alternative C Gen-Tie Transmission Line Alignment** adjacent to Kaiser Road, as viewed from KOP 5 on northbound Kaiser Road. Under this alternative, the Desert Harvest transmission line would be the left (west) transmission line while the First Solar transmission line would be the right (east) transmission line. This alternative would result in a doubling of the structures and a substantial increase in visual contrast and view blockage of the background mountains.

Figure 4.19-5C
Key Observation Point 5
Northbound Kaiser Road
Lake Tamarisk





This image presents the **Existing View** of the **Gen-Tie Alternative D Transmission Line Route**, as it converges on I-10, as viewed from KOP 6 on eastbound I-10. This viewpoint is approximately 0.8 mile west of the I-10 span. This view to the northeast captures a central portion of the northern Chuckwalla Valley, north of I-10. All of the gen-tie alternatives would converge on and then span I-10 in this area. The view is backdropped by the Palen Mountains at a distance of approximately 10 miles.

Figure 4.19-6A
Key Observation Point 6
Eastbound I-10
East of Desert Center





This image presents a **Visual Simulation** of the **Gen-Tie Alternative D Transmission Line Route**, as it converges on I-10, as viewed from KOP 6 on eastbound I-10. This viewpoint is approximately 0.3 mile west of the I-10 span. This cross-valley alternative would introduce prominent vertical features into the central portion of the north valley visible from I-10. All of the gen-tie alternatives would converge on and then span I-10 in this area. The view is backdropped by the Palen Mountains at a distance of approximately 10 miles.

Figure 4.19-6B
Key Observation Point 6
Eastbound I-10
East of Desert Center





This image presents the **Existing View** of the **Gen-Tie Alternative E Transmission Line Route**, in the vicinity of the span of SR 177, as viewed from KOP 7 on northbound SR 177. This viewpoint is approximately 0.3 mile southwest of the span. This view to the northeast captures a central portion of the northern Chuckwalla Valley where it is bisected by Kaiser Road. The view is backdropped by the southeastern extent of the Coxcomb Mountains (center left) and the more distant Palen Mountains (directly ahead).

Figure 4.19-7A
Key Observation Point 7
Northbound SR 177





This image presents a **Visual Simulation** of the **Gen-Tie Alternative E Transmission Line**, in the vicinity of the span of SR 177, as viewed from KOP 7 on northbound SR 177. This cross-valley alternative would introduce prominent vertical features into the central portion of the north valley, which is presently absent similar landscape features. Although there are wood-pole utility poles and an H-frame transmission line in the vicinity, those wood-brown and rough-hewn features do not appear out of place in the rural landscape.

Figure 4.19-7B
Key Observation Point 7
Northbound SR 177





This image presents the **Existing View** of the **Gen-Tie Alternative E Transmission Line Route**, as it crosses Chuckwalla Valley in a circuitous path before converging on I-10, as viewed from KOP 8 on westbound I-10. This view to the north captures a central portion of the generally natural appearing northern Chuckwalla Valley, north of I-10. All of the gen-tie alternatives would converge on and then span I-10 in this area. The view is backdropped by the Coxcomb Mountains at a distance of approximately eight miles.

Figure 4.19-8A
Key Observation Point 8
Westbound I-10
East of Desert Center





This image presents a **Visual Simulation** of the **Gen-Tie Alternative E Transmission Line Route**, as it crosses Chuckwalla Valley in a circuitous path before converging on I-10, as viewed from KOP 8 on westbound I-10. Over 30 structures would be visible from I-10 as this alternative winds through Chuckwalla Valley, though, at viewing distances ranging from 0.6 to over five miles, many of the structures would be only faintly visible in the distant middleground. The view is backdropped by the Coxcomb Mountains at a distance of eight miles.

Figure 4.19-8B
Key Observation Point 8
Westbound I-10
East of Desert Center





This image presents the **Existing View** of the central and northern portions of Chuckwalla Valley in the vicinity of the **Proposed Solar Field** and the **Proposed Gen-Tie Route**, as viewed from KOP 8A on westbound I-10. As is apparent from this image, this portion of the Chuckwalla Valley north of I-10 is predominantly natural in appearance. From this viewpoint, the valley floor is backdropped by the Eagle and Coxcomb Mountains and is surrounded on three sides by Joshua Tree Wilderness.

Figure 4.19-8C
Key Observation Point 8A
Westbound I-10
East of Desert Center





This image presents a **Visual Simulation** of **Alternative 7** (high profile, single-axis tracking panels) and the **Proposed Gen-Tie Route**, as viewed from KOP 8A on westbound I-10. At this viewing distance of approximately 6.75 miles, the solar field would be a noticeable, linear horizontal feature along the Chuckwalla Valley floor. The solar field is shown here as reflecting the bluish hues of the sky. The appearance of the solar panels will change depending on time of day, orientation of the tracking panels, and characteristics of the reflected sky.

Figure 4.19-8D
Key Observation Point 8A
Westbound I-10
East of Desert Center